

LEXSEE 1997 U.S. DIST. LEXIS 2527

ATD CORPORATION, Plaintiff, vs. LYDALL, INC., Defendant.

No. 94-CV-74320-DT

UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF
MICHIGAN, SOUTHERN DIVISION

1997 U.S. Dist. LEXIS 2527; 43 U.S.P.Q.2D (BNA) 1170

February 27, 1997, Decided

February 27, 1997, filed

DISPOSITION: [*1] Plaintiff ATD's April 4, 1996 Motion for Judgment as a Matter of Law or in Alternative, for New Trial DENIED. Defendant Lydall's April 2, 1996 Renewed Motion for Judgment as a Matter of Law that Claim 1 of ATD's '743 Patent Not Infringed DENIED.

CASE SUMMARY:

PROCEDURAL POSTURE: Plaintiff patent holder brought an infringement action against defendant competitor, and both parties sought judgment as a matter of law (JMOL), pursuant to Fed. R. Civ. P. 50(a). The competitor argued that products did not infringe under the doctrine of equivalents and sought a judgment of invalidity of the patents on the ground that the claims of the patents at issue were anticipated over prior art.

OVERVIEW: The trial court denied both parties' motions for JMOL and a jury returned a verdict finding that certain of the patent holder's claims were not infringed by the competitor's product. The jury also found that claims as to certain patents were invalidated by prior art. In ruling on the patent holder's motion for new trial on the issue of infringement, the court denied the motion on the basis that (1) the court did not err in admitting the competitor's patent into evidence and permitting the competitor to rely on the patent as evidence of non-infringement because it could be inferred that the competitor's product was considered by the patent examiner to be nonobvious with respect to the patent holder's patent; and (2) substantial evidence supported the jury's verdict of patent invalidity because the jury could have based its invalidity determination on either anticipation or obviousness grounds. The court also held that the competitor was not entitled to JMOL because it was for the jury to determine whether, based on the evidence, the competitor copied the patent and that the accused product infringed or that the competitor was successful in "designing around" the patent.

OUTCOME: The court denied the patent holder's motion for judgment as a matter of law or, in the alternative, for a new trial, and further denied the competitor's motion for judgment as a matter of law.

LexisNexis(R) Headnotes

Civil Procedure > Trials > Judgment as Matter of Law [HN1] While a district court has authority to grant a Fed. R. Civ. P. 50(b) renewed motion for judgment as a matter of law (JMOL) to protect against completely unjust and unsupported results, this authority is strictly limited. The court (1) must consider all the evidence in a light most favorable to the non-mover, (2) must not determine credibility of witnesses, and (3) must not substitute his or her choice for the jury's in finding facts, drawing inferences, or deciding between conflicting elements in the evidence. It is only if the district court is convinced upon the record before the jury that reasonable persons could not reach or could not have reached a verdict for the non-mover that it should grant a motion for JMOL. If, however, there was substantial evidence to support the jury's presumed or express findings and those findings support the jury's legal conclusion, a motion for JMOL should not be granted. "Substantial evidence" has been defined as relevant evidence from the record which, when reviewed as a whole, would reasonably support the jury's finding under review. Further, "substantial evidence" does not refer to the amount of evidence proffered but rather to the substance or nature of the evidence and whether that evidence would reasonably support the jury's verdict.

Civil Procedure > Relief From Judgment > Motions for New Trial

[HN2] The grant or denial of a motion for new trial is a matter confided almost entirely to the exercise of discretion on the part of the trial court. As such, the trial court's decision on a motion for new trial will not be disturbed on appeal unless it is determined that the court abused its discretion. The broad discretion vested in the trial court in

deciding a Fed. R. Civ. P. 59 motion for new trial extends to motions predicated upon the trial court's improper admission or preclusion of evidence. Where contention for new trial is based on evidentiary rulings, the trial court has great discretion which will not be disturbed on appeal absent a clear abuse of discretion. This is particularly true where the evidentiary rulings concern the determination of the relevancy of evidence. Furthermore, it is only when the error asserted affects the substantial rights of the party asserting it can that error be ground for granting a new trial. Fed. R. Civ. P. 61. Rule 61 makes clear that the court must disregard any error or defect in the proceeding which does not affect the substantial rights of the parties.

Civil Procedure > Relief From Judgment > Motions for New Trial

[HN3] No error in either the admission or the exclusion of evidence and no error or defect in any ruling or order or in anything done or omitted by the court or by any of the parties is grounds for granting a new trial unless refusal to take such action appears to the court inconsistent with substantial justice. The court at every stage of the proceeding must disregard any error or defect in the proceedings which does not affect the substantial rights of the parties. Fed. R. Civ. P. 61.

Civil Procedure > Relief From Judgment > Motions for New Trial

[HN4] With respect to motions for new trial based on the ground that the verdict is against the weight of the evidence, the Sixth Circuit has delineated the following standards: In ruling upon a motion for new trial based on the ground that the verdict is against the weight of the evidence, a district court must compare the opposing proofs and weigh the evidence, and it is the duty of the judge to set aside the verdict and grant a new trial, if he is of the opinion that the verdict is against the clear weight of the evidence. However, courts are not free to reweigh the evidence and set aside the jury verdicts merely because the jury could have drawn different inferences or conclusions or because judges feel that other results are more reasonable. Thus, while the district judge has a duty to intervene in appropriate cases, the jury's verdict should be accepted if it is one which could reasonably have been reached.

Patent Law > Infringement Actions > Doctrine of Equivalents > Fact & Law Issues

[HN5] A finding of infringement under the doctrine of equivalents requires proof of insubstantial differences between the claimed and accused products or processes. Often the function-way-result test will suffice to show the extent of the differences. In such cases, the parties will understandably focus on the evidence of function, way, and result, and the fact-finder will apply the doctrine

based on that evidence. Other factors, however, such as evidence of copying or designing around, may also inform the test for infringement under the doctrine of equivalents. A finding of equivalence is a determination of fact. Proof can be made in any form: through testimony of experts or others versed in the technology; by documents, including texts and treatises; and of course, by the disclosures of the prior art. Like any other issue of fact, final determination requires a balancing of credibility, persuasiveness and weight of evidence.

Patent Law > Infringement Actions > Doctrine of Equivalents > Improvements & New Equivalents

[HN6] Even though an accused device may improve on a patented device through good faith design work, the accused device may nonetheless infringe the patented device under the doctrine of equivalents.

COUNSEL: For Plaintiff: Morley Witus, Esq., Detroit, Michigan. Frederick J. Micharud, Jr., Esq., Alexandria, Va.

For Defendant: Dennis Levasseur, Esq., Detroit, Michigan. Robert Molan, Esq., Washington, D.C.

JUDGES: PRESENT: Honorable Gerald E. Rosen, United States District Judge

OPINIONBY: Gerald E. Rosen

OPINION:

OPINION AND ORDER DENYING RULE 50 AND RULE 59 MOTIONS FOR JUDGMENT AS A MATTER OF LAW AND/OR FOR NEW TRIAL

At a session of said Court, held in the U.S. Courthouse, Detroit, Michigan on FEB 27, 1997

PRESENT: Honorable Gerald E. Rosen

United States District Judge

I. INTRODUCTION

Following the close of proofs in the four-week jury trial of this patent infringement action, pursuant to *Fed. R. Civ.Pro. 50(a)*, Defendant Lydall, Inc. moved for entry of a judgment as a matter of law ("JMOL") seeking (1) a judgment that its All Metal Heat Shield products do not infringe under the doctrine of equivalents [*2] on any of the claims of the two ATD patents at issue, and (2) a judgment of invalidity of the patents on the grounds that the claims of the patents at issue were anticipated over prior art. n1 Plaintiff ATD moved for a JMOL ruling of validity of its patents, i.e., that its patent claims were not anticipated or rendered obvious by prior art. The Court

denied both parties' motions.

n1 Defendant also moved for JMOL on Plaintiff's damages claim. The damages motion is not at issue in these post-judgment proceedings.

After three days of deliberations, the jury returned a verdict finding that claim 3 of ATD's Patent No. 5,011,743 (the "'743 patent") and claims 1, 5, 6, 7, 11 and 19 of ATD's Patent No. 5,111,577 (the "'577 patent") were not infringed by Lydall's All Metal Heat Shield. (The jury deadlocked, 7-1, on the issue of infringement of claim 1 of the '743 patent.) The jury also found that claims 1 and 3 of the '743 patent and claims 1, 11 and 19 of the '577 patent were invalidated by prior art.

Plaintiff ATD [*3] now moves for a new trial pursuant to *Fed. R. Civ. Pro.* 59 on the issue of infringement by Lydall of claims 1 and 3 of the '743 patent and claims 1, 5, 6, 7, 11 and 19 of the '577 patent. ATD also has renewed its motion for JMOL pursuant to *Fed. R. Civ. Pro.* 50(b) seeking to overturn the jury verdict finding its patents invalid, and asks for entry of a judgment as a matter of law in its favor on the issue of the validity of claims 1 and 3 of the '743 patent and claims 1, 11, and 19 of the '577 patent. Defendant Lydall has also filed a Rule 50(b) Renewed Motion for JMOL seeking a ruling that claim 1 of the '743 patent is not infringed by Lydall's products.

Having reviewed and considered the parties' respective motions and voluminous supporting documents, and having further reviewed and considered the transcripts of testimony and the evidence presented at trial, the Court is now prepared to rule on the parties' JMOL/new trial motions. This Opinion and Order sets forth that ruling.

II. SUMMARY OF THE PARTIES' JUDGMENT AS A MATTER OF LAW/NEW TRIAL ARGUMENTS

In Plaintiff ATD's motion and brief for judgment as a matter of law or new trial, ATD has asserted two principal arguments. [*4]

First, ATD contends that it is entitled to a new trial because it claims that the Court committed reversible error in permitting the admission of Lydall's own patent No. 5,424,139 (the "'139 patent") into evidence in support of its non-infringement case. ATD contends that in order for the defendant's own patent to be deemed relevant and, hence, admissible in defending against a claim of infringement under the doctrine of equivalents, two circumstances must be proven: (1) the defendant's patent must cover the accused product, and (2) the patent must have been issued on the basis of "unexpected results." ATD contends a new trial is appropriate on the issue of

infringement because "the clear weight of the evidence is that the Lydall patent was not issued on the basis of 'unexpected results'". ATD further claims that the clear weight of the evidence is that the Lydall patent does not cover the accused Lydall products.

Second, ATD renews its Rule 50 Motion for Judgment as a Matter of Law made at the close of Plaintiff's proofs, that the jury's verdict of invalidity is not supported by the great weight of the evidence presented at trial. Plaintiff contends that the weight of the evidence [*5] presented at trial failed to establish that any of the prior art references on which evidence was offered anticipate the claims of either the '743 or the '577 patent. Plaintiff further contends that the weight of the evidence at trial failed to establish that the claims of the patent were invalid on obviousness grounds.

With respect to Lydall's renewed motion for JMOL on the issue of infringement of claim 1 of ATD's '743 patent, although the jury was unable to return a unanimous verdict on this issue, Lydall argues as it did prior to submission of the case to the jury that the evidence introduced at trial was not sufficient for a reasonable jury to find that Lydall's products infringed on claim 1 of the '743 patent.

III. DISCUSSION

A. GENERAL STANDARDS GOVERNING CONSIDERATION OF POST-VERDICT MOTIONS FOR JUDGMENT AS A MATTER OF LAW AND FOR NEW TRIAL

[HN1] While a district court has authority to grant a Rule 50(b) renewed motion for judgment as a matter of law (formerly designated as a motion for judgment notwithstanding the verdict) n2 to protect against completely unjust and unsupported results, this authority is strictly limited. *Douglass v. Eaton Corp.*, 956 F.2d 1339, [*6] 1343 (6th Cir. 1992). The court

- (1) must consider all the evidence in a light most favorable to the non-mover, (2) must not determine credibility of witnesses, and (3) must not substitute his or her choice for the jury's in finding facts, drawing inferences, or deciding between conflicting elements in the evidence.

DMI, Inc. v. Deere & Co., 802 F.2d 421, 425 (Fed. Cir. 1986). See also, *Douglass v. Eaton Corp.*, *supra*; *Littlejohn v. Rose*, 768 F.2d 765, 770 (6th Cir. 1985), cert. denied, 475 U.S. 1045, 89 L. Ed. 2d 570, 106 S. Ct. 1260 (1986). The court should not be guided by its view of

which side has the better case or by what it would have done had it been serving on the jury. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1546 (Fed. Cir. 1983). It is only if the district court is "convinced upon the record before the jury that reasonable persons could not reach or could not have reached a verdict for the non-mover" that it should grant a motion for JMOL. Id.

n2 The "judgment notwithstanding the verdict" designation was changed to "judgment as a matter of law" in 1991. The Advisory Committee Notes concerning the 1991 Amendments to *Fed. R. Civ. Pro. 50* expressly provide that a court considering a motion for judgment as a matter of law should apply the identical standard as that utilized with the former "judgment notwithstanding the verdict" rule. See 28 U.S.C.A. Rule 50 Advisory Committee Notes, 1991 Amendment.

[*7]

If, however, there was substantial evidence to support the jury's presumed or express findings and those findings support the jury's legal conclusion, a motion for JMOL should not be granted. *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, 758 F.2d 613, 619 (Fed. Cir. 1985), cert. dismissed, 474 U.S. 976 (1985). "Substantial evidence" has been defined as relevant evidence from the record which, when reviewed as a whole, would reasonably support the jury's finding under review. *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1987), cert. denied, 484 U.S. 827, 98 L. Ed. 2d 56, 108 S. Ct. 95 (1987). Further, "substantial evidence" does not refer to the amount of evidence proffered but rather to the substance or nature of the evidence and whether that evidence would reasonably support the jury's verdict. *Perkin-Elmer Corp. v. Computervision Corp.*, 732 F.2d 888, 893 (Fed. Cir. 1984), cert. denied, 469 U.S. 857, 83 L. Ed. 2d 120, 105 S. Ct. 187 (1984). In other words, the substantial evidence standard means that the jury's finding must stand unless it is demonstrated that no reasonable juror could have made it. Standard Havens [*8] *Products v. Gencor Industries*, 953 F.2d 1360, 1367 (Fed. Cir. 1991), cert. denied, 506 U.S. 817, 113 S. Ct. 60, 121 L. Ed. 2d 28 (1992). The fundamental principle is that there must be a minimum of judicial interference with the jury. 9A Wright & Miller, Federal Practice & Procedure, Civil, § 2541 at 261 (1995).

With respect to motions for new trial, it is well-established that [HN2] the grant or denial of a motion for new trial is a matter "confided almost entirely to the exercise of discretion on the part of the trial court." *Allied Chemical Corp. v. Daiflon, Inc.*, 449 U.S. 33, 36, 101 S. Ct. 188, 189, 66 L. Ed. 2d 193 (1980); *City of Cleveland v.*

Peter Kiewit Sons' Co., 624 F.2d 749, 756 (6th Cir. 1980); *Monette v. AM-7-7 Baking Co., Ltd.*, 929 F.2d 276, 280 (6th Cir. 1991). As such, the trial court's decision on a motion for new trial will not be disturbed on appeal unless it is determined that the court abused its discretion. *Logan v. Dayton Hudson Corp.*, 865 F.2d 789, 790 (6th Cir. 1989); *National Polymer Products, Inc. v. Borg-Warner Corporation*, 660 F.2d 171, 178 (6th Cir. 1981), n3

n3 The Sixth Circuit has defined "abuse of discretion" as a definite and firm conviction that the trial court committed a clear error of judgment. *Logan v. Dayton Hudson Corp.*, *supra*; *Fryman v. Federal Crop Ins. Corp.*, 936 F.2d 244 (6th Cir. 1991).

[*9]

The broad discretion vested in the trial court in deciding a Rule 59 motion for new trial extends to motions predicated upon the trial court's improper admission or preclusion of evidence. See generally, 11 Wright & Miller, Federal Practice and Procedure, Civil, § 2818 and cases cited therein. See also, *City of Cleveland v. Peter Kiewit Sons' Co.*, *supra*. Where contention for new trial is based on evidentiary rulings, the trial court has great discretion which will not be disturbed on appeal absent a clear abuse of discretion. *Link v. Mercedes Benz of North America, Inc.*, 788 F.2d 918 (3rd Cir. 1986). This is particularly true where the evidentiary rulings concern the determination of the relevancy of evidence. *McGowan v. Cooper Industries, Inc.*, 863 F.2d 1266, 1271 (6th Cir. 1988).

Furthermore, it is only when the error asserted affects the substantial rights of the party asserting it can that error be ground for granting a new trial. *Fed. R. Civ. Pro. 61*. Rule 61 makes clear that the court must disregard any error or defect in the proceeding which does not affect the substantial rights of the parties. It provides, in pertinent part, as follows: [HN3] [*10]

No error in either the admission or the exclusion of evidence and no error or defect in any ruling or order or in anything done or omitted by the court or by any of the parties is grounds for granting a new trial . . . unless refusal to take such action appears to the court inconsistent with substantial justice. The court at every stage of the proceeding must disregard any error or defect in the proceedings which does not affect the substantial rights of the parties.

Fed. R. Civ. Pro. 61.

[HN4] With respect to motions for new trial based on the ground that the verdict is against the weight of the evidence, which is among the arguments raised in this case, the Sixth Circuit has delineated the following standards:

In ruling upon a motion for new trial based on the ground that the verdict is against the weight of the evidence, a district court must compare the opposing proofs and weigh the evidence. . . , and "it is the duty of the judge to set aside the verdict and grant a new trial, if he is of the opinion that the verdict is against the clear weight of the evidence"

* * *

[However,] "courts are not free to reweigh the evidence and set aside the jury [*11] verdicts merely because the jury could have drawn different inferences or conclusions or because judges feel that other results are more reasonable." . . . Thus, while the district judge has a duty to intervene in appropriate cases, the jury's verdict should be accepted if it is one which could reasonably have been reached.

Bruner v. Dunaway, 684 F.2d 422 at 425, quoting, *TCP Industries, Inc. v. Uniroyal, Inc.*, 661 F.2d 542, 546 (6th Cir. 1981). See also, *Standard Havens Products v. Gencor Industries*, *supra*.

The Court will apply the foregoing general standards in deciding the parties' motions in this case.

B. THE COURT DID NOT ERR IN ADMITTING LYDALL'S PATENT INTO EVIDENCE AND PERMITTING LYDALL TO RELY ON THE PATENT AS EVIDENCE OF NON-INFRINGEMENT

As indicated above, ATD's first argument in support of its motion for new trial is that the Court committed reversible error in permitting the admission of Lydall's '139 patent into evidence in support of its non-infringement case. ATD contends that under *Hoganas AB v. Dresser Industries, Inc.*, 9 F.3d 948 (Fed. Cir. 1993), in order for the defendant's own patent to be deemed relevant [*12] and, hence, admissible in defending against a claim of infringement under the doctrine of equivalents, the defendant must prove two things: (1) that its patent covers the accused product, and (2) that the patent was issued on the basis of "unexpected results." ATD contends there was not sufficient record evidence that the Lydall patent was issued on the basis of "unexpected results". Therefore, according to ATD, Lydall's patent should have been deemed

irrelevant and, accordingly, should not have been admitted as evidence at trial.

ATD's premise is predicated upon a misreading of *Hoganas*. Contrary to Plaintiff's assertion, *Hoganas* does **not** require proof that the defendant's patent was issued on the basis of "unexpected results". To be found relevant and admissible, *Hoganas* requires only evidence that the defendant's patent was issued by the PTO with knowledge of the plaintiff's patent; and from the issuance of the defendant's patent with knowledge of the plaintiff's patent, it can be inferred that the PTO found the accused product to be nonobvious with respect to the plaintiff's patent. The *Hoganas* court stated:

In support of our conclusion [that [*13] the district court did not err in its judgment of non-infringement under the doctrine of the equivalents], we note that the Patent & Trademark Office (PTO) granted to Dresser [the defendant] a patent (U.S. Patent No. 4,430,439) covering the Adtech product with knowledge of [the plaintiff's] '953 patent, which is listed as art of record. Thus, the PTO must have considered the accused product to be nonobvious with respect to the patented composition. **Accordingly, the issuance of that patent is relevant to the equivalence issue.**

9 F.3d at 954.

"Unexpected results" is mentioned only parenthetically **in a footnote** in *Hoganas* in which the court stated that it viewed a finding of "unexpected results" to be the equivalent of a finding of nonobviousness:

In *Atlas Powder Co. v. E.I. Du Pont De Nemours & Co.*, 750 F.2d 1569, 1580 n. 3, 224 U.S.P.Q. 409, 417 n. 3 (Fed. Cir. 1984), we said that the issuance of a patent on an accused product or process was relevant to the equivalence issue if that patent was issued on the basis of "unexpected results" over the prior art. Understanding a finding of "unexpected results" to be tantamount to a finding [*14] of nonobviousness, we conclude the issuance of Dresser's patent is relevant to the equivalence issue in this case.

Id. at n. 28. n4

n4 Even in *Atlas*, the discussion of "unexpected

results" is only dicta:

Of course, if A+B+C' were patented because of unexpected results, those unexpected results might prompt a finding of no equivalence. That finding, however, would exist because under the Graver Tank tripartite [function-way-result] test, the "results" achieved by the claimed and accused products would be substantially different. The district court in this case did not find any such unexpected results. Though it found that Du Pont's products were more stable than those of the '978 patent, that is not necessarily inconsistent with equivalence. Equivalence does not require that the claimed invention and accused product have identical results; the results can be substantially the same and the accused product can be an improvement.

750 F.2d at 1580 n. 3 (citations omitted).

In [*15] *Zygo Corp. v. Wyko Corp.*, 79 F.3d 1563 (Fed. Cir. 1996), the court stated the following with respect to the relevance of a defendant's patent in an equivalence case:

For purposes of infringement under the doctrine of equivalents, the differences between the claimed device and the accused device must be insubstantial. . . .

Wyko's patent, against which the '473 patent was cited and considered as prior art, is thus presumed nonobvious in view of the '473 patent until proven otherwise. The nonobviousness of the accused device, evidenced by the grant of a United States patent, is relevant to the issue of whether the change therein is substantial.

Id. at 1570. See also, *Roton Barrier, Inc. v. Stanley Works*, 79 F.3d 1112, 1128 (Fed. Cir. 1996) (Nies, J. Additional Views) ("The fact that an accused device is itself patented does not preclude a finding that such device infringes an earlier patent of another. However, the fact of a second patent, depending on its subject matter may be relevant to the issue of whether the changes are substantial. . . . Evidence of a patent covering the change. . . is clearly rele-

vant unless the patent is invalid."); National [*16] *Presto Industries, Inc. v. West Bend Co.*, 76 F.3d 1185, 1192 (Fed. Cir. 1996) ("The fact of separate patentability is relevant, and is entitled to due weight. . . . Evidence [concerning the subject matter of the patent] warrants consideration by the trier of fact, along with the other evidence of the differences and similarities of the patented and accused devices.")

In this case, the evidence of record established that during examination of the Lydall application, ATD's '743 and '577 patents were made of record and were considered by Examiner Zimmerman, the same examiner who examined ATD's '743 patent. Examiner Zimmerman allowed Lydall's '139 patent over the ATD patents. Thus, it can be inferred that Examiner Zimmerman considered Lydall's product to be nonobvious with respect to ATD's patent. Therefore, Lydall's patent is clearly relevant to the equivalence issue and whether ATD's and Lydall's patented products are substantially different. n5 Accordingly, no error was committed in admitting Lydall's patent as evidence at trial. n6

n5 Furthermore, the Court gave a limiting instruction to the jury concerning Lydall's patent:

Where there is an issued patent, the later issuance of a patent for a device or method raises no presumption of non-infringement of the previously issued patent. You may consider the later issued Lydall patent in your decision and give it the appropriate weight, but you must keep in mind that even where improvements and modifications are separately patentable, the improved device or method may still infringe the previously issued ATD patents.

A later patented device or method may include additional elements or steps beyond those claimed in the earlier issued patent. But if the later patented device or method contains each and every element of a claim of the earlier issued patent, or an equivalent of any element not literally included, then that claim of the earlier issued patent is infringed.

[Jury Instruction No. 23.]

[*17]

n6 Even if Lydall's patent were erroneously ad-

mitted, such an error was harmless. An error in the admission of evidence is not a ground for granting a new trial where the admission of the evidence was harmless error. *Fed. R. Civ. Pro.* 61. In this case, Lydall presented substantial evidence at trial of its effort to design around ATD's patents and also presented substantial evidence which showed that Lydall's metal mesh separated layers in a different manner than ATD's embossments. This evidence would support a non-infringement verdict even without evidence of Lydall's '139 patent.

For the foregoing reasons, the Court rejects ATD's "error in the admission of evidence" argument. n7

n7 The Court further finds no merit in ATD's argument that Lydall should be bound by its denial of ATD's "requests for admissions" in which ATD asked Lydall to admit that its products were made in accordance with the claims of the Lydall patent. ATD contends that the Court should bind Lydall to its denials and accordingly find no evidence that Lydall's products were covered by its patent. While *Fed. R. Civ. Pro.* 36 binds a party to its admissions in response to requests to admit ("any matter admitted. . . is conclusively established. . ."), there is no authority for binding a party to its pre-trial denials. Furthermore, Lydall complied with its duty to amend discovery responses well in advance of trial, in January 1996, and supplemented the August 1995 Responses to ATD Request for Admissions with an explanation of its denials. There was no discovery abuse which would warrant the sanction ATD now seeks.

[*18]

C. SUBSTANTIAL EVIDENCE SUPPORTS THE JURY'S VERDICT OF PATENT INVALIDITY

ATD also seeks entry of a judgment as a matter of law, or in the alternative, a new trial, on the issue of patent validity. ATD contends that there was not substantial evidence for the jury to have concluded that claims 1 and 3 of the '743 patent and claims 1, 11, and 19 of the '577 patent are invalid.

With respect to patent invalidity, the jury was instructed on "anticipation" and "obviousness", and was also instructed on the presumption of patent validity and the requirement that the defendant, Lydall, establish its invalidity claims by clear and convincing evidence. [See Instruction Nos. 17-19; 28-33.] n8 However, only a "general" verdict of validity/invalidity was sought and

rendered. Specifically, the jury was asked to determine whether Lydall had proven by clear and convincing evidence that any of the subject ATD patent claims were "invalidated by prior art."

n8 No objections as to the instructions were raised by either ATD or Lydall.

[*19]

As indicated above, it is only if the district court is "convinced upon the record before the jury that reasonable persons could not reach or could not have reached [the] verdict" rendered that it should grant a motion for judgment as a matter of law. *Connell v. Sears, Roebuck & Co.*, *supra*, 722 F.2d at 1546; *Standard Havens Products v. Gencor Industries*, 953 F.2d at 1367 (the jury's finding must stand unless it is demonstrated that no reasonable juror could have made it.). If, however, there was substantial evidence to support the jury's presumed or express findings and those findings support the jury's legal conclusion, a motion for JMOL should not be granted. *Shatterproof Glass Corp. v. Libbey-Owens Ford Co.*, *supra* 758 F.2d at 619. See also, *Kearns v. Chrysler Corp.*, 32 F.3d 1541, 1547-48 (*Fed. Cir.* 1994), cert. denied, 514 U.S. 1032, 131 L. Ed. 2d 244, 115 S. Ct. 1392, 115 S. Ct. 1393 (1995) (once a sufficient evidentiary basis for the jury's verdict is established, judicial review of the jury's verdict is complete.)

The jury's verdict of invalidity in this case necessarily incorporated a number of factual determinations. What a prior art reference teaches [*20] is a question of fact. *In re Baird*, 16 F.3d 380, 382 (*Fed. Cir.* 1994). Similarly, whether a prior art reference is "analogous" is also a question of fact. *Wang Lab v. Toshiba Corp.*, 993 F.2d 858, 864 (*Fed. Cir.* 1993); *Heidelberger Druckmaschinen AG v. Hantscho Commercial Products*, 21 F.3d 1068, 1071 (*Fed. Cir.* 1994). Further, all of the Graham factors underlying a determination of obviousness are questions of fact. *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1050 (*Fed. Cir.* 1988), cert. denied, 488 U.S. 825, 102 L. Ed. 2d 51, 109 S. Ct. 75 (1988). Where, as in this case, no special interrogatories reveal the jury's conclusions on disputed factual issues, the Court must presume that the jury made the necessary factual findings to support its general verdict of invalidity. *Bio-Rad Laboratories v. Nicolet Instrument Corp.*, 739 F.2d 604, 607 (*Fed. Cir.* 1984), cert. denied, 469 U.S. 1038, 83 L. Ed. 2d 405, 105 S. Ct. 516 (1984); *Shatterproof Glass Corp. v. Libbey-Owens Ford*, *supra*, 758 F.2d at 619.

ATD contends that Lydall failed establish that any of the claims of the '743 or the '577 patent are invalid as being anticipated or rendered [*21] obvious by the prior art.

The Court disagrees. What is apparently overlooked by ATD is that the jury could have based its invalidity determination on either anticipation or obviousness grounds. It was not necessary for the jury to have found ATD's patent claims invalid as being both anticipated and obvious by virtue of the prior art. Evidence sufficient to establish anticipation, alone, or obviousness, alone, would support the jury's verdict. n9

n9 A claim is "anticipated" and, therefore, invalid only when a single prior art reference discloses each and every limitation of the claim. *Glaxo, Inc. v. Novopharm, Ltd.*, 52 F.3d 1043, 1047 (Fed. Cir. 1995), cert. denied, 133 L. Ed. 2d 424, 116 S. Ct. 516 (1995). However, while anticipation must be based on the presence of each and every limitation of the claim in a *single* reference, obviousness is determined from the teachings of the prior art *taken as a whole*. *In re Napier*, 55 F.3d 610, 613 (Fed. Cir. 1995); *Cedarapids, Inc. v. Nordberg, Inc.*, 895 F. Supp. 1230, 1259 (N.D. Iowa 1995).

[*22]

Lydall introduced a number of prior art references and expert testimony concerning the prior art that establish a substantial basis for the jury to have invalidated the asserted claims on the basis of either anticipation or obviousness.

Lydall's technical expert, Dr. Robert Barry, testified that the ASTM 740 prior art reference disclosed all of the elements included in ATD's asserted patent claims. [3/11/96 Tr., pp. 155-68.] n10 Dr. Barry showed that ASTM 740 disclosed a heat shield including a plurality of embossed foil layers and "heat sink" areas formed from edges that are compressed and secured by stitching. [3/12/96 Tr., pp. 69-70.]

n10 An anticipation reference need not duplicate word for word what is in the claims. Anticipation can occur when a claimed limitation is "inherent" or otherwise implicit in the relevant reference. *Standard Havens Products v. Gencor Industries, supra*, 953 F.2d at 1369.

Dr. Barry also testified that the prior art heat shields, like the claims of the ATD patents, [*23] included insulating areas formed from a plurality of embossed foil layers and "heat sink" areas in the form of edges that are compressed and secured. [3/11/96 Tr., pp. 147-55.] Although Dr. Barry testified that the Meckenstock, Collier and Logan prior art references did not specifically disclose the use of metal "foil" for their layers, he also recognized

that the ATD patents taught that the layers of a heat shield could be whatever thickness was necessary for a particular application. [3/11/96 Tr. pp. 106-107.] n11 Further, as explained by Dr. Barry, a number of prior art references admitted at trial — including the ASTM 667 and ASTM 740 standards — all disclosed the use of metal foil in the construction of heat shields.

n11 ATD's own expert, Michael Leshner, similarly agreed that the main structural difference between Meckenstock and ATD's patented heat shield was that Meckenstock used sheets of aluminum while ATD used sheets of metal foil. [3/4/96 Tr., pp. 107-108.]

Although ATD did present the direct [*24] testimony of Mr. Leshner and the cross-examination testimony of Dr. Barry to contradict Lydall's evidence and present its claim of non-obviousness on the basis of secondary considerations, the Court does not view ATD's evidence as so one-sided that no reasonable juror — after being properly instructed on the elements of anticipation and obviousness and on the standard of proof required, and after considering all of the evidence and weighing the credibility of the witnesses — could not have reached the verdict of invalidity rendered in this case.

For all of the foregoing reasons, ATD's Motion for Judgment as a Matter of Law, or in the Alternative, for New Trial, will be denied.

D. DEFENDANT LYDALL'S RENEWED MOTION FOR JUDGMENT AS A MATTER OF LAW

As indicated above, the only issue on which the jury was unable to reach a verdict was the issue of infringement of claim 1 of the '743 patent. Although Defendant Lydall ultimately was the prevailing party by virtue of the jury's verdict of invalidity of this claim (as well as all of the other patent claims), Lydall has renewed its post-trial JMOL motion and asks the Court to enter judgment of no infringement of claim 1 of the '743 [*25] patent as a matter of law. Lydall contends that there was not sufficient evidence presented at trial for a reasonable jury to find that Lydall's heat shield products infringe claim 1 of ATD's '743 patent under the doctrine of equivalents.

Lydall's defense to ATD's infringement claim at trial was that its metal mesh-separated heat shield is "substantially different" from ATD's patents. Lydall's theory was that substantiality of the differences was demonstrated by the differences between ATD's and Lydall's products, by evidence of several months of product development and guidance of counsel in "designing around" the patent claims, and by the fact that Lydall obtained its own patent.

ATD's position was that the differences between Lydall's mesh-separated heat shields and the patents-in-suit are insubstantial. Further, ATD argued that Lydall did not "design around" the patents but rather copied them.

In the instant motion for JMOL, Lydall asks the Court to find no infringement on claim 1 of the '743 patent under the doctrine of equivalents because in Lydall's opinion (1) its "design around" evidence at trial substantially outweighed ATD's evidence of copying; (2) ATD did not present [*26] sufficient evidence of "interchangeability" of Lydall's twisted metal mesh and ATD's embossed layers or that the mesh was otherwise equivalent to the embossments under the function/way/result test; and (3) Lydall obtained its own patent over prior art reference of ATD's patent. Effectively, Lydall is contending that ATD's evidence of equivalent infringement was wholly deficient in all respects.

The requirements for establishing a claim of infringement under the doctrine of equivalents were detailed by the Federal Circuit in *Hilton Davis Chemical Co. v. Warner-Jenkinson Co., Inc.*, 62 F.3d 1512 (Fed. Cir. 1995) (en banc), cert. granted, 116 S. Ct. 1014 (1996):

[HN5]

[A] finding of infringement under the doctrine of equivalents requires proof of insubstantial differences between the claimed and accused products or processes. Often the function-way-result test will suffice to show the extent of the differences. In such cases, the parties will understandably focus on the evidence of function, way, and result, and the fact-finder will apply the doctrine based on that evidence. Other factors, however, such as evidence of copying or designing around, may also inform the test [*27] for infringement under the doctrine of equivalents. . . . Neither the Supreme Court nor this court limits the types of evidence that either party may proffer in support of a factor it considers probative of infringement under the doctrine.

Id. at 1521-1522.

The Hilton Davis court further held that infringement under the doctrine of equivalents is a question of fact to be submitted to the jury. *Id.* at 1522. The court explained:

A finding of equivalence is a determination of fact. Proof can be made in any form: through testimony of experts or others versed in the technology; by documents, including texts and treatises; and of course, by the disclo-

tures of the prior art. Like any other issue of fact, final determination requires a balancing of credibility, persuasiveness and weight of evidence. . . .

Id. at 1520, quoting *Graver Tank & Mfg Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 609-610, 94 L. Ed. 1097, 70 S. Ct. 854 (1950).

With respect to evidence of copying versus evidence of designing around, the Hilton Davis court made clear that where there is evidence of both copying and designing around, a jury may infer either [*28] that the differences are insubstantial and that the accused product infringes, or that the differences are substantial and that the accused product does not infringe. 62 F.3d at 1519-20. The court stated:

Evidence of copying is . . . relevant to infringement under the doctrine of equivalents, not because the doctrine of equivalents rests on the subjective awareness or motivation of the accused infringer, but rather because copying suggests that the differences between the claimed and accused products or processes — measured objectively — are insubstantial. When an attempt to copy occurs, the fact-finder may infer that the copyist, presumably one of some skill in the art, has made a fair copy, with only insubstantial changes. **Such an inference, of course, would not dominate the doctrine of equivalents analysis.** Instead, where the inference arises, **it must be weighed together with the other evidence** relevant to the substantiality of the differences.

* * *

Evidence of "designing around" the patent claims is also relevant to the question of infringement under the doctrine. The ability of the public successfully to design around — to use the patent disclosure [*29] to design a product or process that does not infringe, but like the claimed invention, is an improvement over the prior art — is one of the important public benefits that justify awarding the patent owner exclusive rights to his invention. . . . When a competitor becomes aware of a patent, and attempts to design around its claims, the fact-finder may infer that the competitor, presumably one of skill in the art, has designed substantial changes into the new product to avoid infringement.

Again, the strength of this inference may vary from case to case. Evidence of designing around therefor weighs against finding infringement under the doctrine of equivalents.

62 F.3d at 1518-1520 (citations omitted).

In this case, Lydall relies upon evidence that Lydall personnel remained in close contact with its patent counsel, Fred Whisenhunt, throughout the course of Lydall's design around efforts, and the testimony of Lydall's president, Mr. Skomrowski, that "from day one" Lydall intended to avoid ATD's patents by designing around them, and if it had wanted to copy the patents, Lydall could have been "off to the races" in 2 to 3 months. However, this evidence of Lydall's "intent" [*30] is irrelevant to the question of infringement. *Hilton Davis*, 62 F.3d at 1519 ("The defendant may have infringed without intending, or even knowing it; but he is not, on that account, the less an infringer." Id.) ATD, on the other hand, presented evidence of copying via the video-taped deposition of Lydall employee, Timothy Byrd. Mr. Byrd testified that prior to studying ATD products, Lydall did not even understand how to construct all-metal heat shields. He further testified that Lydall obtained an ATD heat shield off of a Grand Cherokee and built a copy of the ATD all metal heat shield to test as a replacement for fiber-based shields which Lydall had previously produced.

The foregoing makes clear that, while Lydall's evidence of designing around could indeed weigh in favor of a finding of no equivalent infringement, because evidence of copying was also presented, the jury could have inferred from the evidence either that Lydall copied ATD's patent, suggesting that the differences between the '743 patent and Lydall's product are insubstantial and that the accused product infringes, or that Lydall was successful in "designing around" ATD's patent, suggesting that the [*31] differences are substantial and that the accused product does not infringe. Simply stated, there was sufficient evidence presented to the jury concerning both copying and designing around. Thus, it was — and remains — for the jury to consider and weigh this evidence, together with the other evidence relevant to the substantiality of the differences. Therefore, Lydall's evidence of designing around does not entitle Lydall to a judgment of no infringement as a matter of law.

The same is true of Lydall's reliance on the issuance of a patent for its product. As discussed, above, this, too, is relevant, though not dispositive, evidence. See *Hoganas AB v. Dresser Industries, Inc.*, *supra*. n12

n12 Similarly, while the "interchangeability" of

an element not contained in the patent with one that is in the patent is "an important factor" to be considered by the trier of fact, and is evidence that the change is insubstantial, *Hilton Davis*, *supra*, 92 F.3d at 1519, it is not the only way that insubstantiality of the differences between a patent and an accused product may be shown. Id. As discussed in the text of this Opinion, the Court finds that ATD presented sufficient evidence from which a reasonable jury could infer that the differences between ATD's '743 patent and Lydall's product are insubstantial.

[*32]

Lydall's final argument is that ATD failed to provide sufficient evidence that Lydall's twisted metal mesh was equivalent to the embossments covered under the '743 patent under the traditional function/way/result test. At trial, ATD's expert, Michael Leshner, explained in detail where and how each element of claim 1 of the '743 patent was incorporated in Lydall's heat shield. Mr. Leshner explained that the ATD embossments and the Lydall mesh perform substantially the same function, in substantially the same way, and achieve the same result.

Despite this testimony, Lydall contends that it presented "unrefuted evidence" that its twisted metal mesh product is not equivalent to the claimed embossments under the traditional function/way/result test for infringement under the doctrine of equivalents. Lydall points to the testimony of its own expert, Dr. Robert Barry, who testified that the twisted metal mesh used by Lydall instead of embossments, besides performing the function of separating layers, also provides certain improvements over ATD's embossments and that these improvements establish that Lydall's mesh product is substantially different from the embossed layers in ATD's patents. [*33] Dr. Barry testified that, by using the twisted metal mesh instead of embossments, Lydall's heat shield product provided better reflectivity, better formability and improved crush resistance over ATD's claimed embossments. However, it is well-settled that [HN6] even though an accused device may improve on a patented device through good faith design work, the accused device may nonetheless infringe the patented device under the doctrine of equivalents. *Micro Motion, Inc. v. Exac Corp.*, 741 F. Supp. 1426, 1432 (N.D. Cal. 1990), citing *Ryco, Inc. v. Ag-Bag Corp.*, 857 F.2d 1418, 1426-27 (Fed. Cir. 1988). See also, *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1240 (Fed. Cir. 1989), cert. denied, 493 U.S. 853, 107 L. Ed. 2d 112, 110 S. Ct. 154 (1989) (a device that embodies improvements on a claimed device does not automatically avoid the reach of the claim). While it is true that Dr. Barry's testimony was that the function/way/result

test was not met because, in his opinion, the mesh and embossments are different in the "way" they act to separate the layers because of the additional crush resistance, formability and reflectivity attributes provided by Lydall's mesh, [*34] as the Court stated in denying Defendant's motion for a JMOL at the close of the proofs, it is for the jury to decide which expert to believe:

The infringement issues [in this case] are close. I don't think that there's any question that the products, that the accused [Lydall] product performs the same function [as the ATD device]. I'm fairly well persuaded — I think the jury will be persuaded — that it achieves the same result.

The only place that there's a question is the way in which they results are achieved. In the Lydall product they're achieved through separating the layers — in part, I should say — in separating the layers with the mesh. And in the ATD product they are achieved through separating the layers through the embossments. I think the jury can — I think there's a fair inference either way.

I know that there's been testimony as the conductivity of the mesh versus the contact of the embossments, but I think the jury — [I] think **it's a fact question that the jury is going to have to sort out as to who they believe, whether they believe Dr. Barry or Mr. Leshner as to these issues. . . .**

So, as to the issues of reflectivity and crush resistance [*35] and the issue of formability. . . I still think that there is enough evidence on the other side. . . that the jury could draw the inference that it's. . . still performing or achieving the results in the same way.

[3/13/96 Tr. pp. 141–142.]

Having had the opportunity to review the transcripts of the trial testimony, the Court finds nothing to change its view that sufficient evidence was presented for a reasonable jury to have returned a verdict of infringement of claim 1 of the '743 patent. Therefore, Lydall is not entitled to a judgment as a matter of law of non-infringement of claim 1 of the '743 patent.

CONCLUSION

For all of the reasons stated in this Opinion and Order,

IT IS HEREBY ORDERED that Plaintiff ATD's April 4, 1996 Motion for Judgment as a Matter of Law, or in the Alternative, for a New Trial be, and hereby is, DENIED.

IT IS FURTHER ORDERED that Defendant Lydall's April 2, 1996 Renewed Motion for Judgment as a Matter of Law that Claim 1 of ATD's '743 Patent is Not Infringed be, and hereby is, DENIED.

Gerald E. Rosen

United States District Judge