

**United States Court of Appeals  
for the Federal Circuit**

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**NEIL MINTZ AND  
JIF-PAK MANUFACTURING, INC.,**  
*Plaintiffs-Appellants,*

**and**

**MARCUS MINTZ,**  
*Plaintiff,*

**v.**

**DIETZ & WATSON, INC. AND  
PACKAGE CONCEPTS & MATERIALS, INC.,**  
*Defendants-Appellees.*

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2010-1341

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Appeal from the United States District Court for the  
Southern District of California in Case No. 05-CV-1470,  
Judge M. James Lorenz

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Decided: May 30, 2012

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ROBERT P. ANDRIS, II, Ropers, Majeski, Kohn & Bentley, of Redwood City, California, argued for plaintiffs-appellants. With him on the brief was LAEL D. ANDARA.

JONATHAN HANGARTNER, X-Petents, APC, of La Jolla, California, argued for defendants-appellees.

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Before RADER, *Chief Judge*, NEWMAN, AND DYK, *Circuit Judges*.

RADER, *Chief Judge*.

The United States District Court for the Southern District of California granted Package Concepts & Materials, Inc.'s ("PCM") motion for summary judgment on invalidity and non-infringement against Neil Mintz, Marcus Mintz, and Jif-Pak Manufacturing, Inc. (collectively, "Mintz"). This court affirms the non-infringement determination and vacates the invalidity holding with a remand to the district court for further proceedings.

## I.

Marcus and Neil Mintz appear as co-inventors on U.S. Patent No. 5,413,148 (filed Jan. 6, 1994) ("the '148 patent"). The '148 patent claims a casing structure for encasing meat products. Claim 1 recites:

1. An elongated tubular casing structure for encasing meat products, said elongated structure having a longitudinal direction and a transverse lateral direction, said casing structure comprising:
  - a stockinette member comprising a closely knit tubular member formed of closely knit threads and having a first stretch capacity;
  - a knitted netting arrangement having a second stretch capacity and comprising a first plurality of spaced strands extending in said longitudinal direction

and a second plurality of spaced strands extending in said lateral direction;  
the longitudinal and lateral strands of said netting arrangement each intersecting in locking engagement with one another to form a grid-like pattern comprising a plurality of four-sided shapes;  
said strands of said netting arrangement being knit into the threads of said stockinette member, whereby said netting arrangement and said stockinette member are integrally formed so that said casing structure comprises an integrally formed structure;  
said first stretch capacity being greater than said second stretch capacity;  
whereby, when a meat product is stuffed into said casing structure under pressure, said meat product forms a bulge within each of said four-sided shapes to thereby define a checker-board pattern on the surface thereof, said stockinette member forming a shield to prevent the adherence of adjacent meat product bulges over said strands of said netting arrangement.

'148 patent col.5 l.39 – col.6 l.18 (emphasis added to the disputed claim term).

The '148 specification describes prior art meat encasements, which use a netting that allows meat to bulge between the netting strands and produce a desirable checkerboard pattern on the meat's surface. But, in the prior art encasements, the meat would bulge and cook around the netting strands, causing difficulty in peeling the netting off the cooked meat. The prior art tried to

solve this problem by using a separate layer of collagen film, or stockinette, underneath the netting. This solution, however, required a two-step stuffing process that was labor intensive and expensive.

The '148 patent integrates a stockinette into a netting to make a new kind of meat encasement. The integrated stockinette has more stretching ability than the netting. The patent therefore solves the adherence problem without the higher cost of the two-step stuffing process while still allowing some bulging to create the desirable checkboard or grid-like pattern on the meat surface.

Mintz designs and manufactures knitted meat encasements for processed meat manufacturers. Mintz asserts that the '148 patent covers its Jif-Pak knitted meat encasement products.

PCM, previously a distributor of Mintz's Jif-Pak products, now sells products that directly compete with Mintz. After their distribution agreement ended, PCM began selling certain knitted meat encasement products that Mintz alleges infringe the '148 patent. Mintz now accuses PCM's bubble netting (BN), collagen replacement (CR), and cubic netting (CU) product lines of infringement.

In 2005, PCM filed a declaratory judgment action against Mintz in the United States District Court for the District of South Carolina. Also in 2005, Mintz filed a patent infringement action against PCM in the United States District Court for the Southern District of California. After consolidation of the separate suits, the California district court conducted a *Markman* hearing and issued a claim construction order. The district court construed "locking engagement" as "fixed at each intersection." The parties filed cross-motions for summary judgment on validity and infringement. The district court

granted PCM's motion and denied Mintz's. Mintz filed a motion for reconsideration, which the district court denied. The district court also denied Mintz's motion to exclude the testimony of PCM's expert in the knitting arts.

This court has jurisdiction under 28 U.S.C. § 1295(a)(1).

## II.

This court reviews a district court's grant of summary judgment without deference, *ICU Med. v. Alaris Med. Sys.*, 558 F.3d 1368, 1374 (Fed. Cir. 2009), the decision to allow expert testimony for an abuse of discretion, *Flex-Rest, LLC v. Steelcase, Inc.*, 455 F.3d 1351, 1357 (Fed. Cir. 2006), and determinations on the factual inquiries underlying the obviousness analysis for clear error, *Eli Lilly & Co. v. Zenith Goldline Pharm., Inc.*, 471 F.3d 1369, 1377 (Fed. Cir. 2006).

## III.

Under 35 U.S.C. § 103, a patent claim is invalid as obvious "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." This statutory test requires factual inquiries: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *Eli Lilly & Co. v. Teva Pharm. USA, Inc.*, 619 F.3d 1329, 1336 (Fed. Cir. 2010).

As to the second factor, this court has held, "Factors that may be considered in determining level of skill include: type of problems encountered in art; prior art

solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” See *Custom Accessories, Inc. v. Jeffrey-Allen Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986).

In this case, the prior art, the problems giving rise to the invention, and the invention itself featured the meat encasement art. The district court, however, discounted the importance of familiarity or experience with meat products. Instead, the district court opined that the person of ordinary skill would have familiarity with the knitting art but no familiarity with the meat encasing art. Without some understanding of meat and meat encasement technology in various settings, the artisan of ordinary skill would not grasp many aspects of the invention. Therefore, entirely omitting the meat encasement art led the validity search astray.

The ’148 patent specification repeatedly focuses on the meat encasement art. The patent’s Title, Field of the Invention, and Summary of the Invention all define the invention as a “casing structure for encasing meat products.” ’148 patent, at [54], col.1 ll.14-15, col.2 l.41. Similarly, claim 1 recites a “casing structure for encasing meat products” and further recites “a meat product is stuffed into said casing structure” and the stockinette is “to prevent the adherence of adjacent meat product.” Further, the prior art’s meat adherence problem solved by the claimed invention concerns meat encasement, not knitting. The first line in the ’148 patent’s Description of Prior Art states, “It is known in the meat encasing art ...” and goes on to discuss the prior art meat encasements and their problems. ’148 patent col.1 l.20. Accordingly, the level of ordinary skill in the art of the claimed invention includes the meat encasement art.

As to the first factor, the district court's obviousness ruling rests on U.S. Patent No. 698,499 (filed Mar. 28, 1901) ("Hirner"), U.S. Patent No. 1,981,057 (filed Oct. 29, 1931) ("Lombardi"), and U.S. Patent No. 9,001,395 (filed June 19, 1990) ("Henricus"). Hirner and Lombardi claim inventions related to knitted fabrics for products such as socks; Henricus, on the other hand, teaches various knitted encasements for meat.

Hirner discloses a method of knitting where two horizontal lines connect vertically at spaced intervals. That connection is not created by a separate vertical thread but instead by a loop from the bottom horizontal line thread being looped with a loop from the top horizontal line thread.

Lombardi discloses a method of knitting fabric using a series of drop stitches while preventing the problem of runs in the fabric. A "special yarn" is woven horizontally into the fabric. At the last loop in the regular fabric before beginning the drop stitch series, the special yarn forms a vertical, perpendicular long loop that hangs from the rear of the fabric and secures the regular fabric loop, as shown in Fig.1. Lombardi also discloses an embodiment in which the special yarn loops are not hanging but instead the top of the loop is "caught in the regular knitting," as shown in Fig.4. The special yarn loop creates a visual vertical line perpendicular to the horizontal special yarn woven in the regular fabric.

Henricus discloses a meat encasement using two separate layers: a netting with a fine mesh underneath a number of strengthening threads. The strengthening threads are not completely interwoven with the netting but instead are looped only at select points.

An issued patent enjoys a presumption of validity, and prior art may have different probative weight for the

non-obviousness analysis for reasons including prior consideration before the PTO. 35 U.S.C. § 282; *Am. Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1359-60 (Fed. Cir. 1984); *Microsoft Corp. v. i4i Ltd. P'ship*, 131 S.Ct. 2238, 2251 (2011) (citing *Am. Hoist*). In this case, the examiner considered during prosecution all the prior art cited by PCM against the claimed invention. Thus, the examiner found that the prior art applied in this case had not precluded patentability even before the clear and convincing standard came into play. This court also observes that the inclusion of meat encasement art within the understanding of a person of ordinary skill in this art does not preclude the use of the knitting references as analogous to the claimed invention.

As to the third factor, the district court correctly found all limitations of claim 1 in the prior art except the “intersecting in locking engagement” claim limitation. During prosecution, Mintz added that claim limitation to overcome the examiner’s obviousness rejection over Henricus in view of Lombardi. Contrary to Mintz’s assertions on appeal, the mere existence of different stretch capacities is not sufficient to distinguish the claimed invention from the prior art. The prior art is not limited to a uniform stretch capacity. The PTO specifically identified prior art references with two different stretch capacities.

The district court made a clear error, however, in its unsubstantiated reliance on “a common sense view” or “common sense approach” to hold that it would have been “obvious to try” a locking engagement. The mere recitation of the words “common sense” without any support adds nothing to the obviousness equation. Within the statutory test to determine if a claimed invention has advanced its technical art field enough to warrant an exclusive right, “common sense” is a shorthand label for knowledge so basic that it certainly lies within the skill



set of an ordinary artisan. With little more than an invocation of the words “common sense” (without any record support showing that this knowledge would reside in the ordinarily skilled artisan), the district court overreached in its determination of obviousness.

At this juncture, the district court’s reliance on the perspective of an artisan in the knitting arts is especially problematic. The basic knowledge (common sense) of a knitting artisan is likely to be different from the basic knowledge in the possession of a meat encasement artisan. Moreover, the district court emphasized that the problem in the prior art was merely forming a checkerboard or grid-like pattern. To be specific, the district court erroneously phrased the issue as whether it would have been obvious to simply “fix each point of intersection” of each strand in order to solve that problem.

This statement of the problem represents a form of prohibited reliance on hindsight. The district court has used the invention to define the problem that the invention solves. Often the inventive contribution lies in defining the problem in a new revelatory way. In other words, when someone is presented with the identical problem and told to make the patented invention, it often becomes virtually certain that the artisan will succeed in making the invention. Instead, PCM must prove by clear and convincing evidence that a person of ordinary skill in the meat encasement arts at the time of the invention would have recognized the adherence problem recognized by the inventors and found it obvious to produce the meat encasement structure disclosed in the ’148 patent to solve that problem.

As to the fourth factor, the district court made a clear error in not considering or making any findings as to Mintz’s evidence showing objective indicia of non-

obviousness. This court has repeatedly emphasized that the objective indicia constitute “independent evidence of nonobviousness.” *Pressure Prods. Med. Supplies, Inc. v. Greatbatch Ltd.*, 599 F.3d 1308, 1319 (Fed. Cir. 2010). Indeed, objective indicia “may often be the most probative and cogent evidence of nonobviousness in the record.” *Ortho-McNeil Pharm. V. Mylan Labs., Inc.*, 520 F.3d 1358, 1365 (Fed. Cir. 2008); *see also Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.*, 776 F.2d 281, 306 (Fed. Cir. 1985) (Objective indicia “may be the most pertinent, probative, and revealing evidence available to the decision maker in reaching a conclusion on the obviousness/nonobviousness issue.”). Such evidence “may often establish that an invention appearing to have been obvious in light of the prior art was not.” *Simmons Fastener Corp. v. Illinois Tool Works, Inc.*, 739 F.2d 1573, 1575 (Fed. Cir. 1984).

These objective guideposts are powerful tools for courts faced with the difficult task of avoiding subconscious reliance on hindsight. *See Crocs, Inc. v. ITC*, 598 F.3d 1294, 1310 (Fed. Cir. 2010) (Objective indicia “can be the most probative evidence of non-obviousness in the record, and enable the court to avert the trap of hindsight.”). These objective criteria help inoculate the obviousness analysis against hindsight. The objective indicia “guard against slipping into use of hindsight and to resist the temptation to read into the prior art the teachings of the invention in issue.” *Graham v. John Deere Co.*, 383 U.S. 1, 36 (1966). This built-in protection can help to place a scientific advance in the proper temporal and technical perspective when tested years later for obviousness against charges of making only a minor incremental improvement. “That which may be made clear and thus ‘obvious’ to a court, with the invention fully diagrammed and aided by experts in the field, may have been a break-

through of substantial dimension when first unveiled.” *Uniroyal, Inc. v. Budkin-Wiley Corp.*, 837 F.2d 1044, 1051 (Fed. Cir. 1988).

These objective criteria thus help turn back the clock and place the claims in the context that led to their invention. Technical advance, like much of human endeavor, often occurs through incremental steps toward greater goals. These marginal advances in retrospect may seem deceptively simple, particularly when retracing the path already blazed by the inventor. For these reasons, this court requires consideration of these objective indicia because they “provide objective evidence of how the patented device is viewed in the marketplace, by those directly interested in the product.” *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1391 (Fed. Cir. 1988); *see also Spectralytics, Inc. v. Cordis Corp.*, 649 F.3d 1336, 1344 (Fed. Cir. 2011) (“The objective considerations reflect the contemporary view of the invention by competitors and the marketplace.”); *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1273 (Fed. Cir. 1991) (“The significance of a new structure is often better measured in the marketplace than in the courtroom.”); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed. Cir. 1985) (“Recognizing the difficulty of casting one’s mind back to the state of technology at the time the invention was made, courts have long recognized the usefulness of evidence of the contemporaneous attitude toward the asserted invention. A retrospective view of the invention is best gleaned from those who were there at the time.”). Obviousness requires a court to walk a tight-rope blindfolded (to avoid hindsight) — an enterprise best pursued with the safety net of objective evidence.

Mintz presented considerable record evidence on objective indicia, including unexpected results, expert skepticism, copying, commercial success, praise by others

(even from the accused infringer PCM), failure by others, and long-felt need. Inexplicably, the district court erroneously stated, “Plaintiffs do not appear to offer any objective evidence of nonobviousness.”

The record also shows that Mintz gave the district court an opportunity to correct this error by noting this oversight in its motion for reconsideration. In denying that motion, the district court acknowledged that Mintz did present such evidence in its opening summary judgment brief. Nonetheless, the district court dismissed without consideration that presentation as “scant.” To the contrary, the district court should have proceeded to analyze the evidence.

The district court seemed to believe that it need not fully weigh objective indicia evidence. This court has consistently counseled otherwise. *See, e.g., Transocean Offshore Deepwater Drilling, Inc. v. Maersk Contractors USA, Inc.*, 617 F.3d 1296, 1305 (Fed. Cir. 2010) (“We hold that the district court erred by failing to consider Transocean’s objective evidence of nonobviousness. ... To be clear, a district court must *always* consider any objective evidence of nonobviousness presented in a case.”); *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 960 (Fed. Cir. 1986) (“When present, such objective evidence must be considered. It can be the most probative evidence of nonobviousness in the record, and enables the district court to avert the trap of hindsight.”). This obligation is not waived, as the district court seemed to suggest, by some procedural requirement that ducks consideration of evidence presented in the opening brief but not pursued in a reply brief or in an oral argument that veers in a different direction.

Indeed, where the invention is less technologically complex, the need for *Graham* findings can be important

to ward against falling into the forbidden use of hindsight. Simply because the technology can be easily understood does not mean that it will satisfy the legal standard of obviousness. In fact, objective consideration of simple technology is often the most difficult because, once the problem and solution appear together in the patent disclosure, the advance seems self-evident. Instead, the proper analysis requires a form of amnesia that “forgets” the invention and analyzes the prior art and understanding of the problem at the date of invention.

Here, Mintz presented substantial evidence of unexpected results, expert skepticism, copying, commercial success, praise by others (even from the accused infringer PCM), failure by others, and long-felt need. *See Power-One v. Artesyn Techs., Inc.*, 599 F.3d 1343, 1352 (Fed. Cir. 2010) (“[P]raise from a competitor tends to indicate that the invention was not obvious.”); *Gambro Lunda AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1579 (Fed. Cir. 1997) (Before the litigation, the accused infringer recognized the technology “as a significant advance” and “touted the advantages.” The accused infringer’s “recognition of the importance of this advance is relevant to a determination of nonobviousness.”); *Heidelberger Druckmaschinen AG v. Hantscho Commercial Prod., Inc.*, 21 F.3d 1068, 1072 (Fed. Cir. 1994) (“Indeed, the litigation argument that an innovation is really quite ordinary carries diminished weight when offered by those who had tried and failed to solve the same problem, and then promptly adopted the solution that they are now denigrating.”); *Continental Can Co. USA, Inc. v. Monsanto Co.*, 948 F.2d 1264, 1273 (Fed. Cir. 1991) (“Thus when differences that may appear technologically minor nonetheless have a practical impact, particularly in a crowded field, the decision-maker must consider the obviousness of the new structure in this light. Such objective indicia as

commercial success, or filling an existing need, illuminate the technological and commercial environment of the inventor, and aid in understanding the state of the art at the time the invention was made.”).

For example, when PCM was the distributor of Jif-Pak products covered by the '148 patent (for 8 years), PCM sent customers many letters and brochures praising the benefits of the Jif-Pak products. Once Mintz terminated the distribution agreement, PCM began selling the products accused of infringement in this case. Similarly, other companies have been accused of infringement by Mintz and either requested to license the '148 patent or were found to infringe a related European patent. Mintz has been granted similar patents in other countries and has sold embodiments of the '148 patent in 20 countries.

Additionally, despite the old elastic netting having been sold on the market for over 30 years and the collagen film for over 10 years, before Mintz's claimed invention, the prior art disclosed no solutions to the problem of meat adherence without the laborious two-step process or the higher expense. Mintz presented an example of a competitor who tried to solve the problem but failed. Since their introduction over 15 years ago, the Jif-Pak products have become the industry standard. Mintz has sold over \$70 million of the Jif-Pak products in the United States alone.

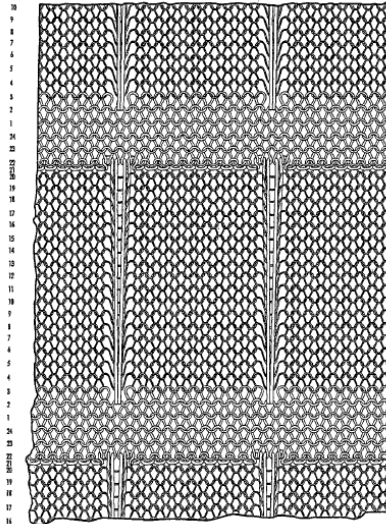
Having identified several errors in the district court's obviousness analysis, this court vacates and remands to the district court. *See Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.*, 796 F.2d 443, 449 (Fed. Cir. 1986) (“This court, as an appellate court, may not make the required *Graham* factual findings, and must therefore remand that determination to the district court. The district court should not ignore the four-part analysis the

authorities require.”). In light of the following section on the issue of infringement, however, this court leaves to the district court to decide whether any further proceedings are necessary. The district court may proceed if the parties are still contesting validity of the '148 patent.

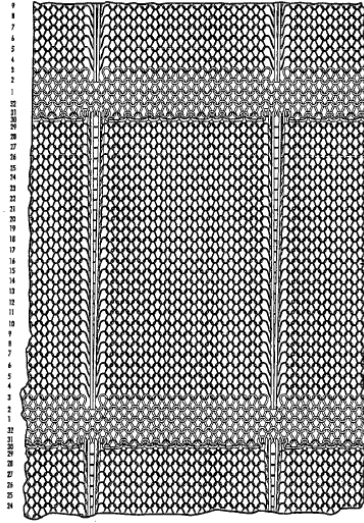
#### IV.

The district court correctly found the accused PCM products do not infringe the '148 patent. The PCM products do not satisfy the “intersecting in locking engagement” claim limitation. The longitudinal strands in the PCM products are always separated by at least one row of regular loops.

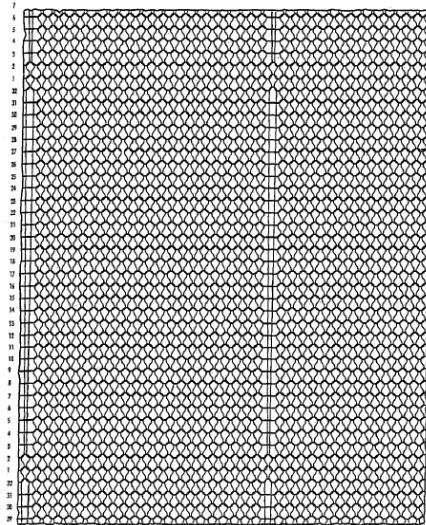
#### BN



CU



CR



As shown in the figures above, the longitudinal strands are represented vertically. Each longitudinal strand is made of long loops. The loops of the regular fabric are much smaller than the long loops that make up

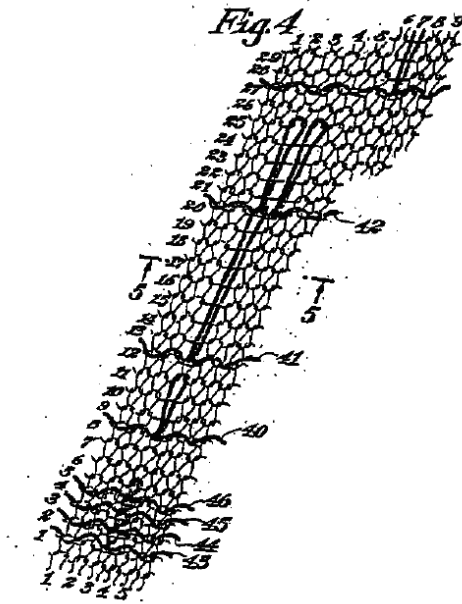


the longitudinal strand. In each figure, there are two longitudinal strands. For each longitudinal strand, starting from the bottom, the figure shows the top of one loop, then the entirety of another loop, and finally the bottom of another loop. Each longitudinal strand is separated from the one below and above by rows of regular loops (three rows in the BN netting, two rows in the CU netting, and one row in the CR netting). The gaps (made of regular loops) between the loops of the longitudinal strands preclude the longitudinal strands from “intersecting in locking engagement.”

Indeed, the PCM products have the same gap (made of regular loops) between each longitudinal strand that Mintz argued the prior art Lombardi showed as distinct from the claimed invention:

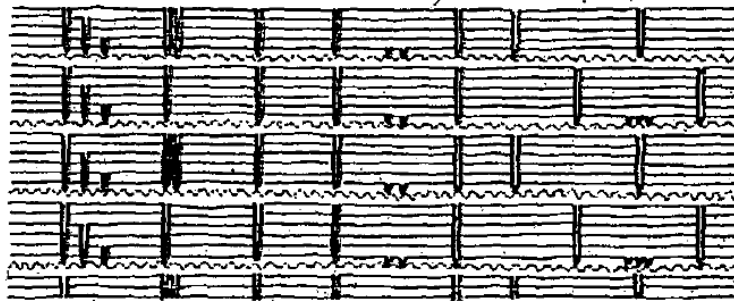
In the embodiment shown in Fig. 4 ... in Lombardi, each loop of special yarn extending in the longitudinal direction does not intersect in locking engagement with each special yarn extending in the lateral direction to form a grid-like pattern. This is also apparent from Fig. 6 of Lombardi, where the aligned long loops of special yarn are each separated from one another by a row of regular loops.

Appendix at A2944.



As shown in Fig. 4, the top of the single loop in special yarn 40 and the two loops in special yarn 42 are looped with a regular fabric loop. There is a gap (made of regular fabric loops) between the top of the loop in special yarn 40 and the horizontal line of special yarn 41. Similarly, there is a gap (made of regular fabric loops) between the top of the loops in special yarn 42 and the horizontal line of special yarn 43.

*Fig. 6*



As shown in Fig.6, the longitudinal strands are represented by short vertical darker lines. Each vertical line is separated from the one below and above by a gap of white space, representing the regular fabric loops.

Mintz's argument for why Lombardi lacks the "intersecting in locking engagement" claim limitation applies similarly to explain why PCM's accused products also lack that claim limitation. This court affirms the district court's holding of non-infringement.

**VACATED-IN-PART, AFFIRMED-IN-PART,  
AND REMANDED.**