

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

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**REXNORD INDUSTRIES, LLC,**  
*Appellant,*

v.

**DAVID J. KAPPOS, DIRECTOR,  
UNITED STATES PATENT AND TRADEMARK  
OFFICE,**  
*Appellee,*

AND

**HABASIT BELTING, INC.,**  
*Appellee.*

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2011-1434

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Appeal from the United States Patent and Trademark  
Office, Board of Patent Appeals and Interferences.

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Decided: January 23, 2013

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DAVID R. CROSS, Quarles & Brady, LLP, of Milwaukee, Wisconsin, argued for appellant. With him on the brief was JOHANNA WILBERT.

MARY L. KELLY, Associate Solicitor, United States Patent and Trademark Office, of Alexandria, Virginia. With her on the brief were RAYMOND T. CHEN, Solicitor, and WILLIAM LAMARCA, Associate Solicitor.

MATTHEW T. BAILEY, McKeena Long & Aldridge, LLP, of Washington, DC, argued for appellee. With him on the brief was RANDALL C. PYLES.

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Before NEWMAN, LOURIE, and PROST, *Circuit Judges*.

NEWMAN, *Circuit Judge*.

Rexnord Industries requested *inter partes* reexamination of U.S. Patent No. 6,523,680 (the '680 patent), owned by Habasit Belting, Inc. The United States Patent and Trademark Office (PTO) Board of Patent Appeals and Interferences (Board) confirmed claims 1–14 of the '680 patent. Rexnord appeals. We affirm that the claims are not anticipated, and reverse the Board's determination that the claimed invention is not obvious in view of certain prior art.

#### BACKGROUND

In 2003 Habasit filed an infringement suit against Rexnord in the United States District Court for the District of Delaware, Civil Action No. 03-185-JJF. Rexnord then filed a request for reexamination of the '680 patent, and the district court stayed the infringement suit pending completion of reexamination. On reexamination, the examiner held all of the claims in the '680 patent unpatentable for anticipation and obviousness. On appeal by Habasit, the PTO Board reversed the examiner's decision and held the claims patentable. That decision is appealed by Rexnord.

The '680 patent is for a mechanical conveyor belt that is formed of rows of belt modules interlinked by transverse rods. The interlinked modules form an endless belt that is capable of following a curved path. The spaces between the belt modules are blocked by plastic "webs" so that the spaces are too small to pinch small items such as a finger; the claims state that the spaces are smaller than 10 mm in diameter. Claim 1 is representative (boldface added to the limitation here at issue):

1. A radius conveyor belt, comprising:

a plurality of belt modules having a plurality of first link ends disposed in the direction of belt travel and having a plurality of second link ends disposed in the opposite direction, a cross-rib disposed between the first and second link ends and having a web, and a corrugated portion disposed adjacent to the web, the first and second link ends disposed such that a space capable of receiving a link end is formed between each adjacent link end, the space being open at one end and terminating in rounded region at the opposite end, the plurality of first link ends being offset from the plurality of second link ends such that the first link ends align with the space between the second link ends such that adjacently positioned belt modules are capable of intercalating so that the first link ends of one belt module fit into the spaces defined therein, the slot disposed transverse to the direction of belt travel and extending in the direction of belt travel, the plurality of second link ends having a transverse opening defined therein;

a pivot rod extending transverse to the direction of belt travel through the openings in the second link end of one of the plurality of belt modules

and extending through the slotted openings in the first link end of an adjacent belt module such that the first and second link ends of the adjacent belt modules are intercalated and the adjacent belt modules are interlinked into adjacent hinged rows capable of following a curved path;

wherein the web on the cross-rib extends in the direction of belt travel such that, when the belt is at maximum extension in the direction of belt travel, **a space bounded by the web, an outer end of the first link ends and the sidewalls of second link ends has a diameter less than 10 mm.**

The belt modules are illustrated in the '680 patent as follows:

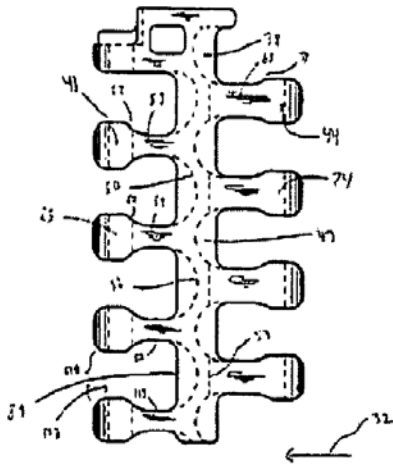


Figure 1

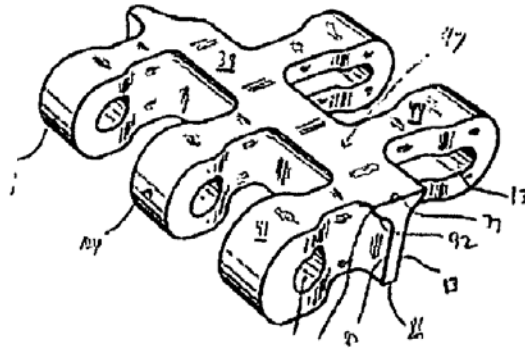
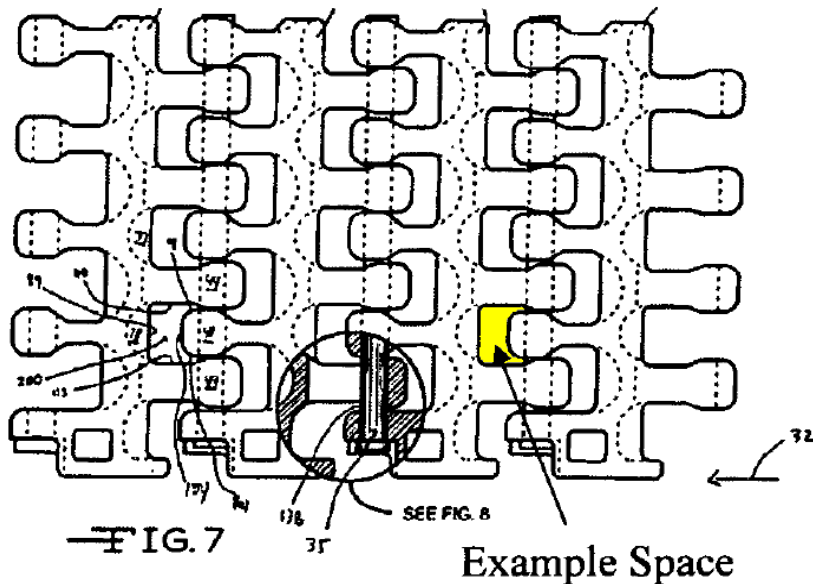


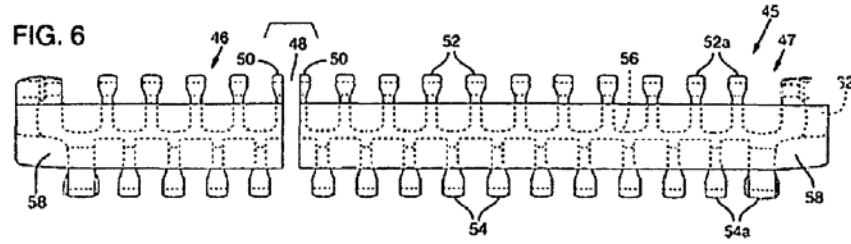
Figure 5

The link ends of the modules are intercalated and connected by pivot rods to form a hinge. Patent Figure 7 shows the belt formed by the interlinked modules, with the critical "space" limitation marked as "Example Space," also marked as space 200:



The Habasit patent describes, and the claims state, that the space between the link ends has a diameter of less than 10 mm when the belt is at its maximum extension, “to prevent fingers from penetrating the grid.” ’680 patent, col.1 l.60.

Rexnord cited four references for the reexamination: U.S. Patent No. 6,382,405 (Palmaer), U.S. Patent No. 6,471,048 (Thompson), U.S. Patent 5,372,248 (Horton), and U.S. Patent No. 5,253,749 (Ensch). Each reference describes a conveyor belt comprising modules that are assembled similarly to the modules in the ’680 patent. The reference modules are pictured as follows:



Palmaer Figure 6 (A726)

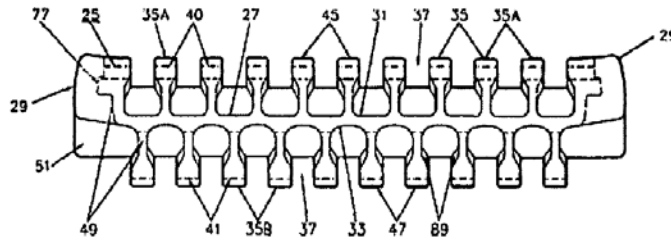


FIGURE 5

Thompson Figure 5 (A738)

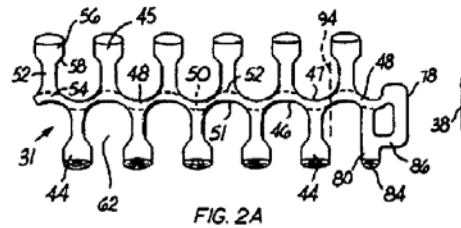


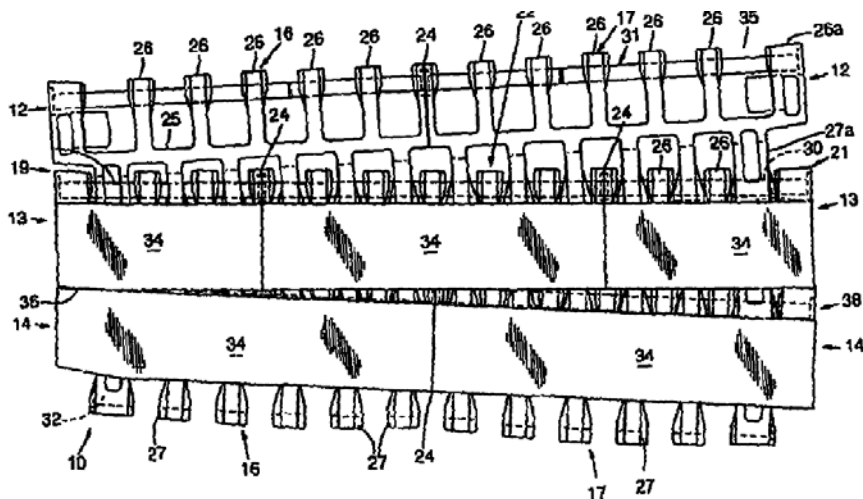
FIG. 2A

Horton Figure 2A (A768)



Ensch Figure 6 (A781)

Two of the reference patents, Palmaer and Thompson, discuss the problem of objects such as fingers getting caught in the space between the modules, and state that the structure of their belt reduces the size of the space. Neither Palmaer nor Thompson states the size, or maximum size, of the space when the conveyor belt is at its maximum extension. Palmaer describes a solid deck 34, which functions to reduce the space between the first and second link ends by partially covering the gap between the link ends. Palmaer states that the remaining gaps between the solid deck are “substantially closed” by the interdigitated link ends, “so that only relatively small objects would be capable of falling through” when the belt is at its maximum extension. Palmaer, col.1 l.64–col.2 l.2. The remaining space is labeled gap 38 in Palmaer Figure 1:



Palmaer Figure 1

Thompson describes a conveyor belt of modules containing a plate 51, which forms the boundaries of gap 37 along with the first and second link ends, and prevents objects from getting caught in gap 37. The Board found that

when the Thompson belt is at its maximum extension plate 51 completely covers gap 37. A top view of the Thompson belt is shown in Figure 11:

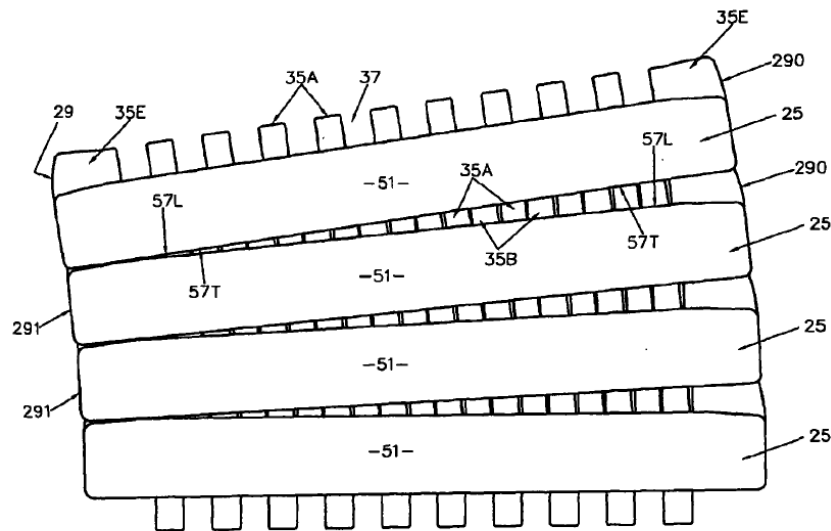


FIGURE 11

### Thompson Figure 11

On Rexnord's request for reexamination, the examiner found that Horton shows all of the elements of independent claims 1 and 8 of the '680 patent except for "a web adjacent the corrugated portion positioned such that a space . . . has a diameter less than 10 mm." J.A. 183. The examiner cited Thompson for teaching a web between modules to prevent pinching of objects between modules, and cited Palmaer and Thompson for showing a space sufficiently small to prevent pinching of small objects such as a finger. The examiner concluded that it would have been obvious for a person of ordinary skill in this field to combine the Horton modules with the Thompson web to create a space with a diameter less than 10 mm to prevent pinching of small objects. The examiner summarized in the Right of Appeal Notice:



Thompson '048 discloses the broad teaching of providing a corrugated intermediate portion with an adjacent web portion to prevent objects from being pinched between adjacent modules where a space bounded by the web, an outer end of the first link end and the sidewalls of the second link ends is completely closed. It would have been obvious to one of ordinary skill in the art to [include in] the modules of Horton '248 . . . a web adjacent the corrugated portion to prevent objects from being pinched between adjacent modules as taught by Thompson '048.

Right of Appeal Notice at 11 (Sept. 25, 2007).

Habasit appealed to the PTO Board. Habasit argued that the cited references were not properly combined, because the Thompson and Horton conveyor belts served different purposes, in the food industry and for baggage handling. Rexnord responded that the references all relate to conveyor belts, and argued that “[o]ne skilled in the art looking to solve a problem of pinching objects between belt modules of a plastic radius conveyor belt in one application, such as the food industry, would look to other applications of plastic radius conveyor belts, such as in the baggage handling industry.” The Board did not discuss this argument.

Habasit also argued to the Board that the 10 mm maximum dimension of the space is not stated in any reference, and that some reference belts have no space. Rexnord responded that a 10 mm maximum space is inherent in the structures described in the references, and that “Thompson, Jr. et al. teaches solving this very problem by extending a web portion to at least partially cover gaps between modules, which will prevent objects from falling between modules and getting pinched. *See* col. 6,

lines 46–49 of Thompson, Jr. et al.” Rexnord Board Br. 75–76.

The Board stated that “the dispositive issue on appeal is: did the examiner err in determining that both Palmaer and Thompson, Jr. disclose a space having a diameter of less than 10 mm as recited by the claims?” Board Op. 6. The Board observed that the references do not state the dimensions of the space between modules, and “the Examiner has not identified where the prior art discloses that this space has a diameter of less than 10 mm as required by the claims.” *Id.* at 11. The Board stated that “[t]o the extent the Examiner’s rejection relies on an interpretation of ‘space’ as allowing for situations where the space itself is completely closed or is part of a contiguous surface or body . . . so as to have a diameter of 0 mm, this interpretation essentially reads the limitation space, a positively recited feature, out of the claims.” Board Op. 12. The Board, reversing the examiner, held that the ’680 claims are not anticipated by any cited reference, and are unobvious over the cited references.

Rexnord requested rehearing, arguing that the Board overlooked the examiner’s analysis in the rejection of the claims over Horton in view of Thompson, and that the Board misapprehended the fact that space of less than 10 mm between the modules is inherently present in both Palmaer and Thompson. The Board responded that it had not overlooked the examiner’s analysis, and that Rexnord had waived its inherency arguments for anticipation. The Board stated that “Rexnord’s reliance on ‘design choices’ . . . is more consistent with an obviousness analysis,” Dec. on Rehearing, at 4, but did not discuss Rexnord’s arguments for obviousness. The Board stated that “Rexnord’s reasons as to why it would have been obvious to construct a space as recited in the claims (Request, 3–5) were not

the rationale of the Examiner's rejection." Dec. on Re-hearing at 3.

Rexnord appeals the Board's reasoning and conclusions, and criticizes the Board's refusal to review all of the arguments that Rexnord had presented as grounds for unpatentability.

#### DISCUSSION

Rexnord argues that each of the Palmaer and Thompson references anticipates or renders obvious the '680 claims, because the "less than 10 mm" space is present in the prior art conveyor belts, although the space is not measured in millimeters. Rexnord does not dispute that neither Palmaer nor Thompson states the size of its space between modules, but argues that "a prior art reference may anticipate without disclosing a feature of the claimed invention if that missing characteristic is necessarily present, or inherent, in the single anticipating reference," *Schering Corp. v. Geneva Pharm.*, 339 F.3d 1373, 1377 (Fed. Cir. 2003).

The PTO responds that the Board correctly found that neither Palmaer nor Thompson states the size of the space between modules, and that the inherency argument fails because a space of less than 10 mm is not necessarily present in any reference belt. This court explained in *In re Omeprazole Patent Litigation*, 483 F.3d 1364 (Fed. Cir. 2007) that "anticipation by inherent disclosure is appropriate only when the reference discloses prior art that must necessarily include the unstated limitation, [or the reference] cannot inherently anticipate the claims." *Id.* at 1378. We agree with the Board that the precise less-than-10 mm size limitation is not inherent in Palmaer or Thompson, for neither reference shows this limitation and that it would necessarily be recognized. However, the references all state that the space between modules

should be limited against small objects and to prevent pinching of fingers. Thus we conclude that the Board erred in holding that it would not have been obvious to limit the space to the 10 mm maximum, and in reversing the examiner's ruling of obviousness on this ground, without considering any of the other grounds of obviousness that had been raised for reexamination.

The Board stated that the only issue for Board review related to the 10 mm space, since that was the basis of the examiner's decision. The PTO states on this appeal that the Board need not consider other grounds that had been presented during the reexamination, for they had not been raised on the appeal to the Board.

In its request for reexamination, Rexnord discussed the references to Palmaer, Thompson, Horton, and Ensich, as mentioned *ante*, and argued, inter alia, that “the only difference between the teaching of the Thompson, Jr. '048 Patent and the '680 Patent is that the '680 Patent teaches a design choice which allows pinching a small child's finger having a diameter of less than 10 mm in the gap between adjacent links.” J.A. 673. On this appeal, the PTO states that the Board does not consider aspects beyond those relied on by the examiner. The PTO states that Rexnord's argument that it would have been “a mere design choice,” in view of Horton and Thompson, to create a 10 mm space was not raised until Rexnord's motion for Board rehearing. PTO Br. 15–16. The PTO brief states that “[t]he Board correctly declined Rexnord's invitation to reject representative claim 1 as obvious over the combined teachings of Horton and Thompson under this new theory – presented by Rexnord for the first time in its request for rehearing.” *Id.* at 29–30.

However, the “new theory” was not new. These references had previously been presented to the examiner.

*See* Request for Inter Partes Reexamination at 7 (“the ’680 patent teaches a design choice which allows pinching a small child’s finger having a diameter of less than 10 mm in the gap between adjacent links”; “the limitation of 10 mm is merely a design choice”; “A design choice was made by the Patentee in the ’680 patent”; “The Patentee clearly indicated that 10 mm is merely a design choice.”) The issue was fully raised before the examiner, and these references were not again a patentability issue until after the Board reversed the examiner.

When Habasit appealed the examiner’s decision, Rexnord was not barred from presenting this argument in defense of the examiner. The PTO states in its brief on this appeal:

Just as this Court does not entertain arguments made outside of appellant’s opening brief, *see, e.g., In re Watts*, 354 F.3d 1362, 1367 (Fed. Cir. 2004); *In re Schreiber*, 128 F.3d 1473, 1479 (Fed. Cir. 1997), the Board has a rule that similarly bars the presentation of new arguments outside appellant’s opening brief (absent circumstances not alleged here), *see* 37 C.F.R. § 41.79(b).

PTO Br. 24. We observe that Rexnord was not the appellant before the Board, and that the premise is an incorrect statement of the appellate process. On judicial review, the correctness of the decision appealed from can be defended by the *appellee* on any ground that is supported by the record, whether or not the appellant raised the argument. *See Jaffke v. Dunham*, 352 U.S. 280, 281 (1957) (“A successful party in the District Court may sustain its judgment on any ground that finds support in the record.”); *Glaxo Group Ltd. v. TorPharm, Inc.*, 153 F.3d 1366, 1371 (Fed. Cir. 1998) (“an appellate court may affirm a judgment of a district court on any ground the

law and the record will support so long as that ground would not expand the relief granted”); *Datascope Corp. v. SMEC, Inc.*, 879 F.2d 820, 822 n.1 (Fed. Cir. 1989) (“Appellees always have the right to assert alternative grounds for affirming the judgment that are supported by the record.”); *Bio-Rad Labs., Inc. v. Nicolet Instrument Corp.*, 807 F.2d 964, 969 (Fed. Cir. 1986) (“a court of appeals may affirm the judgment of a district court on any ground, including grounds not relied upon by the district court”).

Rexnord asked the Board on rehearing to consider the other grounds before the examiner, in support of the examiner’s decision. Rexnord again pointed out that the conveyor belts of the prior art show every element of the claims except the specific measure in millimeters of the maximum space between modules. The examiner stated that “Palmaer . . . teaches openings extending from the top surface to a bottom surface as can be seen in Figures 2, 5, and 6.” J.A. 194. The examiner observed that the Thompson reference is directed to the same problem as in the ’680 patent, namely, preventing fingers from being caught in the conveyor belt, citing Thompson, col.1 ll.26–35, col.14 ll.13–17. The examiner found that the “less than 10 mm” recitation in the claims is met because Palmaer and Thompson both show spaces that are completely closed and thus are less than 10 mm in diameter. J.A. 187–88. No error has been shown in these findings.

All of the structural elements of the claims are shown in the references. A space that is small enough to avoid pinching of fingers is taught in the prior art, with the 10 mm dimension a design choice that takes account of the size of fingers and other small objects. The Board erred in declining to consider the references presented for reexamination, and in declining to consider Rexnord’s arguments in support of the examiner’s decision. The

Board's decision is reversed as to obviousness, and the examiner's reexamination decision is reinstated. The Board's decision as to anticipation is affirmed.

**AFFIRMED-IN-PART, REVERSED-IN-PART**