

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 33

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHARLES I. BELISLE
and MICHAEL L. STEPHAN

Appeal No. 2002-2224
Application 08/923,103

ON BRIEF

Before KIMLIN, WARREN and OWENS, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

Decision on Appeal and Opinion

We have carefully considered the record in this appeal under 35 U.S.C. § 134, including the opposing views of the examiner, in the answer, and appellants, in the brief, and based on our review, find that we cannot sustain the rejection of appealed claims 1 through 7, 12 through 16 and 18 through 22, which are all of the claims before us in this appeal,¹ under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in the specification (FIGs. 1-4 and

¹ The examiner withdrew the ground of rejection with respect to appealed claims 8 through 11 and 17 in the answer (page 11). Claims 1 through 22 are all of the claims in the application, a copy of which appears in the appendix to the brief.

corresponding disclosure) in view of King, Jr. (King).² We refer to the examiner's answer and to appellants' brief for a complete exposition of the opposing views of the parties.

In order to establish a *prima facie* case of obviousness, the examiner must show that some objective teaching, suggestion or motivation in the applied prior art taken as a whole and/or knowledge generally available to one of ordinary skill in this art would have led that person to the claimed invention as a whole, *including each and every limitation of the claims*, without recourse to the teachings in appellants' disclosure. *See generally, In re Rouffet*, 149 F.3d 1350, 1358, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998); *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.*, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996); *In re Fine*, 837 F.2d 1071, 1074-76, 5 USPQ2d 1596, 1598-1600 (Fed. Cir. 1988); *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988).

The plain language of appealed claim 1 interpreted in light of the specification as it would be interpreted by one of ordinary skill in this art, provides that the second feature arranged around an outer surface of the shaft is configured to mate with the first feature arranged around an inner surface of the opening wall of a washer "such that the washer is removable from the shaft without breaking the washer or the shaft." *See In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997). Appellants submit that there is no factual support in King for the examiner's contention that the washer and shaft of King can be separated without breaking (brief, page 11), and indeed, the examiner in stating the ground of rejection, alleges that the washer and shaft of King can be separated, and in doing so, does not cite any evidence in King (answer, page 5).

In responding to appellants' argument in the brief, the examiner takes the position that the subject claim language "is not a positive limitation but only requires the ability to so perform . . . [and] does not constitute a limitation in any patentable sense," and in this respect, contends that the claim language does not require "that the washer and bolt actually be removed only that if removed the bolt or shank will not break" (answer, page 9). However, the examiner further states that

² Answer, pages 3-5. We decide this appeal based on appealed claim 1 in view of appellants grouping of the claims (brief, page 4). 37 CFR § 1.192(c)(7) (2002).

[t]he washers of King being more flexible than the shank of the bolt, it is expected that upon application of force to remove the washers, the washers will disengage from the shank of the bolt and slide off of the bolt in the same manner that the washer is effectively positioned to mate with the knurls of the shank of the bolt wherein the two components are secured. Thus there is a reasonable degree of expectation that the washer and shank can be engaged and disengaged without breaking the bolt of King. [*Id.*, page 10.]

It is axiomatic that all limitations in a claim must be considered in applying any statutory provision. Here, appealed claim 1 clearly requires that the respective features of the shaft and washer must mate in a manner that permits the washer to be removed from the shaft without breaking either component. The examiner's explanation that it is reasonable to expect that the flexibility of the washer used by King permits disengagement in which the washer slide off of the shaft in the same manner that it was positioned to mate with the knurls of the shank without breaking either component, does not include specific reference to disclosure and **Figs.** in King.

We find that King discloses with reference to **Figs. 1** and **3** which show diamond pattern knurling on the bolt shaft, that

[t]he washers **16** are similar to the commercially available self-locking washers and each has a bearing portion **25** and a locking portion **26**. . . . The locking portion **26** is segmented so that each segment **28** may be resiliently urged outwardly and the inside diameter thereof is slightly less than the diameter of the shank **14** of the locking bolt **11** with which washers **16** are to be used. Therefore, the segments **28** flex outwardly and permit the washer **16** to slide along the shank **14** under a force parallel to centerline of the shank **14** in that direction opposite to the direction in which the locking position **26** protrudes from the washer **16**. It will be noted that upon forcing the washer **16** in that direction opposite to that set forth above *causes the segments 28 to dig into the surface of the shank 14 and lock the washer 16 into the bolt 11*. [Col. 3, lines 53-73; emphasis supplied.]

We observe in **Fig. 3** that an edge of each of segments **28** of washers **16** are dug into the knurl patterned part of bolt **11** as described. While there is no disclosure in King with respect to removing washers **26** from bolt **11**, we find that King does disclose with respect to **Fig. 19** that separation of the washers of the locking assembly from the shank of the bolt involves breaking away that portion of the shank in which the edges of the washers are embedded (col. 9, lines 53-58).

It seems to us that the only flexibility in the washer taught in King is that involved with the outward flexing of the segments of the washer which permits the washer, that has a smaller

diameter than the shank, to be forced over the shank, thus causing the washer segments to mate with the knurled surface of the shank, that is, an edge of each segment is dug into the shank, with the positioning of the washer segments in the shank as shown in King **Fig. 3**. In the absence of a scientific explanation by the examiner based on the disclosure and **Figs.** of King, it is not clear on this record that the thus mated segments of the washer having a smaller diameter than the shank, can be reversed by force in sliding the washer off of the shank without breaking any of the segments and thus the washer, and/or breaking away the portion of the shank into which the edges of the washer segments are embedded.

Accordingly, we agree with appellants that the examiner has not established a *prima facie* case of obviousness over the applied prior art because the examiner has not established that the limitation of the removal of the washer from the shaft without breaking the washer and/or the bolt of appealed claim 1 would have been disclosed to one of ordinary skill in this art by King.

The examiner's decision is reversed.

Reversed

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
)	
)	
)	
CHARLES F. WARREN)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
TERRY J. OWENS)	
Administrative Patent Judge)	

Kevin L. Daffer
Conley Rose & Tayon
PO Box 398
Austin, TX 78767-0398