

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GARY W. BORCHERDING

Appeal No. 2005-0687
Application No. 10/097,510

ON BRIEF

Before KIMLIN, PAK and PAWLIKOWSKI, Administrative Patent Judges.
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 15, 17-32, 34, 35 and 37-41. Claim 18 is illustrative:

18. A lubricant retention assembly employed in a shaft opening of a device containing a bearing and a shaft of the device, the assembly comprising:

a thrust collar having an exterior surface and an opposite, cylindrical interior surface surrounding a center bore of the thrust collar, the interior surface having an interior diameter dimension for mounting of the thrust collar on the shaft for

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rotation of the thrust collar with the shaft, the center bore having a center axis that defines mutually perpendicular axial and radial directions relative to the thrust collar, and the thrust collar having an annular flange that projects outwardly from the thrust collar exterior surface to a peripheral edge of the annular flange, the annular flange having opposite interior and exterior surfaces and the interior surface extending both axially and radially over the thrust collar exterior surface, and,

the annular flange having a peripheral surface at the flange peripheral edge, the peripheral surface extending axially between the flange interior surface and the flange exterior surface and the flange peripheral surface being parallel to the thrust collar center axis.

In addition to the admitted prior art found in appellant's specification, the examiner relies upon the following references as evidence of obviousness:

Fruhstorfer	1,945,219	Jan. 30, 1934
Lakin	4,711,590	Dec. 8, 1987
Williams et al. (Williams)	5,575,355	Nov. 19, 1996

Appellant's claimed invention is directed to a lubricant retention assembly of an electric motor that has a self-contained lubricant reservoir. The assembly comprises

[A] thrust collar mounted on the motor shaft and a bearing cap surrounding the thrust collar, where the thrust collar has an annular flange that throws lubricant leaking along the shaft radially outwardly toward the bearing cap and the bearing cap has an angled interior surface that deflects the lubricant thrown by the annular flange into the motor interior and toward the lubricant reservoir [page 1 of specification].

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Appealed claims 20-32, 34, 35, 37, 38 and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Lakin. Claims 15 and 17-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Lakin and Fruhstorfer. Also, claims 39 and 41 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the admitted prior art in view of Lakin and Williams.

Appellant submits at page 8 of the principal brief that claims 15, 17 and 19 stand or fall together with claim 18, but states that "[e]ach of claims 18, 20-35, and 37-41 are [sic, is] separately patentable." However, we agree with the examiner that appellant has failed to present substantive arguments for the patentability of each of claims 18, 20-32, 34, 35 and 37-41.¹ Statements such as "each of dependent claims 21, 22, 23, and 24 recite [sic, recites] additional structural features of the bearing cap of the invention" (page 11 of principal brief, third paragraph) do not meet the requirements for separate arguments which explain why the claimed features would have been nonobviousness to one of ordinary skill in the art. See 37 CFR

¹ The examiner has withdrawn the rejection of claim 33 although the inclusion of claim 33 was mistakenly made in the statement of the rejection (see page 3 of Answer, paragraphs numbered (10) and (11)).

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§ 1.192(c)(7) (2002). Accordingly, we agree with the examiner that the following groups of claims stand or fall together:

(I) claims 15 and 17-19; (II) claims 20-24; (III) claims 25-29; (IV) claims 30 and 31); (V) claims 32, 34, 35, 37 and 40; and (VI) claims 39 and 41.

We have thoroughly reviewed each of appellant's arguments for patentability. However, we are in complete agreement with the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejections for the reasons set forth in the Answer, which we incorporate herein, and we add the following for emphasis only.

In essence, we concur with the examiner's assessment that there are structural differences between the prior art of record and the preferred embodiment of appellant's invention, but the broadest reasonable interpretation of the claims on appeal results in lubricant retention assemblies that would have been obvious to one of ordinary skill in the art in view of the applied prior art. Consequently, appellant's arguments set forth in the principal and reply briefs are not commensurate in scope

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and, therefore, not germane to the degree of protection sought by the appealed claims.

Specifically, appellant contends that the prior art does not disclose the claim 20 requirement that "the bearing cap having a radially inner edge that extends around the annular flange of the thrust collar" (emphasis added). However, we agree with the examiner's reasoning that the admitted prior art depicted in appellant's Figure 1 comprises a bearing cap 36 having inner walls 44 and 46 and a lip 48 that is situated "around" thrust collar 34 (see paragraph bridging pages 3 and 4 of Answer). As explained by the examiner,

[t]he language of the claim does not narrowly limit the radially inner edge (the lip of the APA of Figure 1) to be at the same axial position as the thrust collar but only requires the lip to be 'on various sides' of or 'in any direction' towards the thrust collar.

(Page 4 of Answer, first paragraph, penultimate sentence). Claim 20 does not require, as urged by appellant, that "the radially inner edge of the bearing cap circumscribes the annular flange of the thrust collar" (page 3 of Reply Brief, third paragraph).

Appellant also maintains that the admitted prior art does not disclose the claim 25 requirement that "the bearing cap having an annular side wall with an interior surface that extends

both axially from the outer perimeter and radially inwardly from the outer perimeter to a radially inner edge of the bearing cap that extends around the thrust collar." However, the examiner correctly sets forth that:

Figure 1 meets the limitations of claim 25 by at least the following manner: the bearing cap inner wall (collectively the first wall 44, the second wall 46 and the lip 48) extends both axially from the outer perimeter (as wall 44 so extends) and radially inwardly from the outer perimeter (as wall 46 so extends) to a radial edge (lip 48) that extends around the thrust collar (lip 48 extends around the thrust collar as set forth above regarding claims 20-24).

(Page 5 of Answer, first paragraph). While appellant maintains that the admitted prior art of Figure 1 does not show the tapered bearing cap shown in appellant's Figure 2, the examiner properly notes that claim 25 "does not require the bearing cap to be tapered" (id.). We agree with the examiner that a wall which extends both axially and radially is not limited to a tapered wall that extends axially and radially at the same time but, rather, includes a wall which at some point extends axially and at another point extends radially.

Regarding claim 32, appellant submits that the examiner's rationale "makes clear that the Lakin reference does not disclose the two separate features of the claimed thrust collar, the thrust collar flange and the thrust collar annular end surface,

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because it is necessary to interpret the ring 90 of the Lakin reference as both of these separate structural features recited in claim 32" (page 14 of principal brief, first paragraph, last sentence). However, we agree with the examiner that "[c]laim 32 does not require the annular end surface to be one of the inherently two extreme end surfaces of the thrust collar nor does claim 32 limit the oblique annular end surface to be not on the flange" (page 6 of Answer, first paragraph, penultimate sentence).

As for the requirement of claims 39 and 41 that the thrust washer be an o-ring, we agree with the examiner that Williams evidences the obviousness of selecting an o-ring for the thrust washer of the admitted prior art. Although appellant argues that "[t]here is nothing in Figure 1 or the Williams' reference to suggest the claimed combination of the thrust collar and the O-ring seal recited in claims 39 and 41" (page 19 of principal brief, last paragraph), the claims do not require a combination of a thrust collar and an o-ring. Manifestly, the claims recite that the thrust washer is an o-ring. We note that appellant persists in the Reply Brief with the mistaken assumption that "the language of claim 39 requires the combination of the thrust collar and the o-ring seal" (page 6 of Reply Brief, last

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paragraph).

We further agree with the examiner that Fruhstorfer establishes the obviousness of utilizing a thrust collar having a flange peripheral surface that is parallel to the center axis of the thrust collar. As noted by the examiner, each of the three designs for the thrust collars of Fruhstorfer has different structural shapes for different applications, and it would have been a matter of obviousness for one of ordinary skill in the art to select the particular design for the thrust collar which optimizes the retention of lubricant (see paragraph bridging pages 7 and 8 of Answer).

As a final point, we note that appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the prima facie case of obviousness established by the examiner for the claimed subject matter.

In conclusion, based on the foregoing and the reasons well-stated by the examiner, the examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

AFFIRMED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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CHUNG K. PAK)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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