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14/182,180	02/17/2014	Robert E. Smith III	221-0098USD	6722
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Blank Rome LLP - Houston General 717 Texas Avenue, Suite 1400 Houston, TX 77002			LINFORD, JAMES ALBERT	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* ROBERT E. SMITH, III

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Appeal 2019-000254  
Application 14/182,180  
Technology Center 3600

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Before: JOHN C. KERINS, CHARLES N. GREENHUT, and  
MICHAEL L. WOODS, *Administrative Patent Judges*.

KERINS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant appeals from the Examiner's decision to reject claims 1, 3–8, 22, and 23.<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM IN PART.

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<sup>1</sup> The term “Appellant” is used herein to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies National Coupling Company as the real party in interest. Appeal Br. 3.

### THE CLAIMED SUBJECT MATTER

Appellant's invention relates to a probe seal for a female hydraulic coupling. Claim 1 is illustrative, and is reproduced below:

1. A probe seal for a female hydraulic coupling member comprising:

a generally ring-shaped body having a first end, an opposing second end, a generally cylindrical outer surface and a generally cylindrical inner surface;

a first annular chamber within the ring-shaped body between the inner surface and the outer surface, the chamber having an inner wall generally parallel to the inner surface of the ring-shaped body and an outer wall generally parallel to the inner surface of the ring-shaped body;

a first fluid passageway connecting the annular chamber with the inner surface; and,

an annular groove in at least one end of the ring-shaped body proximate the outer surface.

### THE REJECTIONS

The Examiner rejects:

(i) claims 1, 3–5, 7, 8, 22, and 23 under 35 U.S.C. § 102(b) as being anticipated by Grazioli (US 4,572,515, issued Feb. 25, 1986); and

(ii) claim 6 under 35 U.S.C. § 103 as being unpatentable over Grazioli.

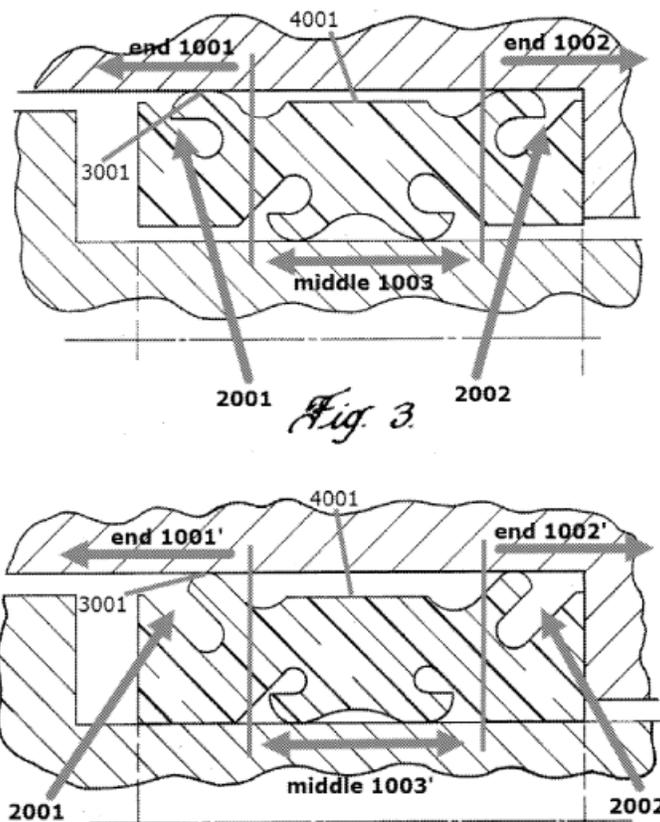
## ANALYSIS

### *Claims 1, 3–5, 7, 8, 22, and 23--Anticipation by Grazioli*

Appellant presents arguments for the claims as a group, and presents separate arguments directed to dependent claims 4 and 5. For the arguments directed to the claims as a group, we select claim 1 as representative. We separately address the arguments presented for claims 4 and 5.

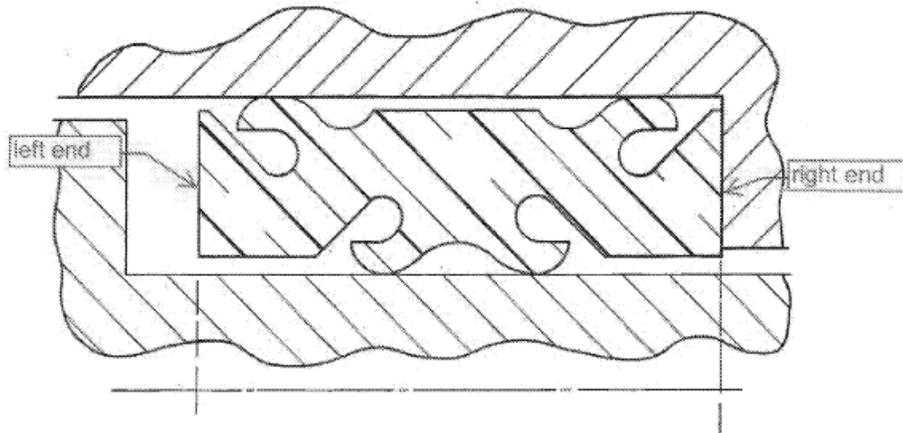
### *Claims 1, 3, 7, 8, 22, and 23*

The Examiner finds that Grazioli discloses all limitations presented in claim 1, including “an annular groove in at least one end of the ring-shaped body proximate the outer surface.” Final Act. 4–5. For this particular limitation, the Examiner specifies “(see one of the grooves).” *Id.* at 5. In response to Appellant’s argument that the grooves in Grazioli are not in an end of the ring-shaped body, which we address in detail *infra*, the Examiner provides annotated versions of Figures 3 and 4 of Grazioli, which are reproduced below:



Illustrated above are Examiner-annotated versions of Figure 3 (top) and Figure 4 (bottom) of Grazioli, which are sectional views of a bidirectional sealing element. Ans. 7. From these annotated drawings, and the accompanying analysis provided by the Examiner, it is clear that the Examiner's position is that the term "end" as used in claim 1 is sufficiently broad as to include an "end portion" of a ring-shaped body. Ans. 3–13.

Appellant disagrees, arguing that the plain meaning of the term "end" in the context of the claimed ring-shaped body, must be interpreted as the terminal surface of the end, as shown in Appellant's annotation of Figure 3 of Grazioli, reproduced below:



*Fig. 3*

Illustrated above is an Appellant-annotated version of Figure of Grazioli, which is a sectional view of a bidirectional sealing element. According to Appellant, applying this interpretation of the claim term “end,” the grooves in Grazioli are not in the ends of the ring-shaped body, but are instead in the outer, circumferential surface of the seal. Appeal Br. 14–15.

Appellant additionally argues that a ring-shaped body is essentially a cylinder having a relatively large central axial bore, and maintains that a right cylinder has three surfaces, namely a planar top end, a planar bottom end, and a curved side surface extending between the top and bottom ends. Reply Br. 2. The reference to a right cylinder is inapposite, in that, as Appellant acknowledges, a ring-shaped body differs in shape from a right cylinder by having a central axial bore, which creates additional surfaces that are to be taken into account.

Appellant concludes by asserting that,

The “ends” of a cylinder are not portions of its body of arbitrary extent; they are certain surfaces of that body. The “annular groove in at least one end of the ring-shaped body proximate the outer surface” required by claim 1 is unambiguously a groove in the end surface of the seal body.

Reply Br. 4.

Appellant's position is belied by the absence of the term "surface" in claim 1, whereas, in dependent claim 5, the "surface" is positively recited pertaining to "a portion of the surface of the first end" and "a portion of the surface of the second end." Appeal Br. 19, Claims App. If we were to construe the term "end" as being limited to "end surface," this would render superfluous the presence, twice, of the term "surface" in modifying the term "end" in claim 5. As we are instructed by our reviewing court to refrain from claim interpretations that render other terms superfluous, we conclude that the term "end" in claim 1 is not to be limited to "end surface" as Appellant argues, but rather, the Examiner's interpretation of "end" as including an end portion is within the broadest reasonable interpretation of the term. *Stumbo v. Eastman Outdoors, Inc.*, 508 F.3d 1358, 1362 (Fed. Cir. 2007) (additionally citing to earlier cases denouncing claim constructions that render terms in claims superfluous); *see also, Becton, Dickinson and Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) ("Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention.") (citations omitted).

Accordingly, Appellant's arguments directed to claim 1 as not being anticipated by Grazioli do not apprise us of error in the rejection. The rejection of claim 1 is sustained. Claims 3, 7, 8, 22, and 23 fall with claim 1.

#### *Claim 4*

Claim 4 requires that the outside diameter of the probe seal be greater at the end of the ring-shaped body than at the middle of the ring-shaped

body. Appellant argues that, “Grazioli makes no mention of the outside diameter of bidirectional seal 24 and Figs. 3 and 4 of Grazioli show the same outside diameter at the ends and the middle of the body of seat 24.”<sup>2</sup> Appeal Br. 16.

The Examiner replies, having reference to the Examiner-annotated figures reproduced above, that the outside diameter of the Grazioli seal at the end of the ring-shaped body is established at the outer extent of the sealing lip designated at numeral 3001, and the diameter there is greater than that at the middle 4001 of the ring-shaped body. Ans. 14.

Because we above concluded that the claimed “end” is reasonably construed as being an “end portion,” and because Appellant’s own construction similarly relies on the outer extent of sealing surface 207 as the reference point for establishing an outer diameter at the end of the ring-shaped member, we are not apprised of error in the Examiner’s position relative to the limitations found in claim 4.

The rejection of claim 4 as being anticipated by Grazioli is sustained.

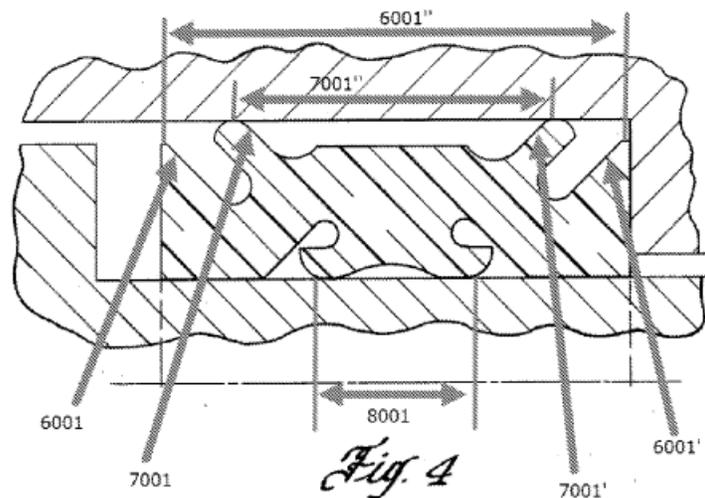
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<sup>2</sup> Figures 3 and 4 of Grazioli are devoid of any reference numerals, and Appellant’s identification of reference numeral 24 pertains to Figures 3 and 4 of European patent EP 0191251, reproduced by Appellant at pages 13–14 of the Appeal Brief. Appellant asserts that this European patent is the equivalent of the Grazioli patent applied in the rejection. Appeal Br. 13. We note that the structure illustrated in the reproduced figures is identical or nearly identical to the structure in Figures 3 and 4 of Grazioli, but do not take, and do not need to take, a position as to whether the European patent is equivalent to the applied reference.

*Claim 5*

Appellant maintains that Grazioli does not disclose the limitations in claim 5, which requires portions of the surfaces of the first and second ends to be at complementary (recited as “complimentary” in claim 5) acute angles relative to the longitudinal axis of the ring-shaped body, such that the axial dimension at the outer surface is greater than the axial dimension at the inner surface. Appeal Br. 16. According to Appellant, the end surfaces of Grazioli are squared, and thus the axial dimensions of the inner and outer surfaces are the same. *Id.*

The Examiner provides a further annotated version of Figure 4 of Grazioli in attempting to illustrate how Grazioli is interpreted as meeting the limitations of claim 5. The annotated Figure 4 is reproduced below:



Illustrated above is an Examiner-annotated version Figure 4 of Grazioli, which is a sectional view of a bidirectional sealing element.

The Examiner identifies portions 6001 and 6001' or 7001 and 7001' as portions of surface of the ring-like member at which complementary acute angles are formed, and ultimately finds that the axial dimension at the outer

surface, measured as 6001'' or 7001'', is greater than the axial dimension at the inner surface, measured as 8001. Ans. 15.

Appellant has the better position here. Regardless as to whether the acute angles identified by the Examiner meet the corresponding limitations in claim 5, the full axial dimension of both the inner and outer surfaces of the Grazioli ring-like structure is the same, as represented by 6001'' in the above Examiner-annotated figure. Grazioli thus does not disclose that the outer surface has a greater axial dimension than the inner surface, as required by claim 5.

The rejection of claim 5 as being anticipated by Grazioli is not sustained.

*Claim 6—Unpatentability over Grazioli*

Appellant essentially argues that claim 6 is not obvious over Grazioli, on the basis that claim 1, from which claim 6 depends, is not obvious over Grazioli. Appeal Br. 17. In that we have determined that the Examiner has not erred in rejecting claim 1 as being anticipated by Grazioli, and in that anticipation is the epitome of obviousness, Appellant's argument fails to apprise us of error in the rejection of claim 6.<sup>3</sup>

The rejection is sustained.

## CONCLUSION

The rejection of claims 1, 3, 4, 7, 8, 22, and 23 under 35 U.S.C. § 102(b) is affirmed.

The rejection of claim 5 under 35 U.S.C. § 102(b) is reversed.

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<sup>3</sup> *In re Pearson*, 494 F.2d 1399, 1402 (CCPA 1974); *see also In re Fracalossi*, 681 F.2d 792, 794 (CCPA 1982).

The rejection of claim 6 under 35 U.S.C. § 103(a) is affirmed.

DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 3–5, 7, 8, 22, 23	§ 102(b)	Grazioli	1, 3, 4, 7, 8, 22, 23	5
6	§ 103(a)	Grazioli	6	
<b>Overall Outcome</b>			1, 3, 4, 6–8, 22, 23	5

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED IN PART