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124679	7590	03/10/2020	EXAMINER	
Quarles & Brady LLP/The Dow Chemical Company 411 East Wisconsin Avenue, Suite 2400 Milwaukee, WI 53202			TAWFIK, SAMEH	
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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* MARCOS PINI FRANCA, BRUNO RUFATO PEREIRA,  
RAIMUND GERSTNER, and LIANGKAI MA

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Appeal 2019-005200  
Application 14/928,572  
Technology Center 3700

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Before MURRIEL E. CRAWFORD, KENNETH G. SCHOPFER, and  
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

SCHOPFER, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the  
Examiner’s decision to reject claims 1, 2, and 7–15. We have jurisdiction  
under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> We use the word “Appellant” to refer to “applicant” as defined in 37  
C.F.R. § 1.42. Appellant identifies the real party in interest as Dow Global  
Technologies LLC. Appeal Br. 3.

## BACKGROUND

The Specification “is directed to a process for sealing a flexible fitment between two flexible films.” Spec. ¶ 1.

## ILLUSTRATIVE CLAIM

Claim 1 is the only independent claim on appeal and recites:

1. A process comprising:

A. providing a fitment with a base having a wall thickness ( $T_w$ ), the base comprising an ethylene/ $\alpha$ -olefin multi-block copolymer;

B. placing the base between two opposing multilayer films, each multilayer film having a respective seal layer comprising an olefin-based polymer;

C. positioning the base and opposing multilayer films between opposing seal bars, each seal bar comprising

(i) a front surface,

(ii) a recessed surface a distance ( $x$ ) behind the front surface, the recessed surface having a first end and an opposing second end, and

(iii) a curved surface at each opposing end, the curved surface extending between the front surface and the recessed surface, each curved surface having a radius of curvature ( $R_c$ ) greater than or equal to distance ( $x$ ); and

D. heat sealing the base to each multilayer film.

Appeal Br. 19.

## REJECTION

The Examiner rejects claims 1, 2, and 7–15 under 35 U.S.C. § 103 as unpatentable over Buchanan<sup>2</sup> in view of Barry.<sup>3</sup>

## DISCUSSION

We are persuaded of error in the rejection of claim 1, as discussed below.

With respect to claim 1, the Examiner finds, *inter alia*, that Buchanan teaches a method including the use of opposing seal bars with the structure required by the claim. Final Act. 2–3. Specifically, the Examiner first finds that Buchanan teaches seal bars 33 and 34 with a front surface “via front surface of each bar,” a recessed surface “via channel 35” with first and second ends “via two ends of 35,” and a curved surface “via each end of recess 35 partially curved between the front surface of the bar and the recessed portion.” *Id.* In the Answer, the Examiner provides a slightly different interpretation of Buchanan:

The office maintains that the applied art of ‘544 indeed discloses the claimed heat seal bar structure as clearly shown in Fig. 4, with the claimed front surface via the front surface of 34, recessed surface via at the lower portion of the formed recess 36, curved surface at each opposing end, via the curved portion between the front surface 34 and lower recess surface 36[.]

Ans. 5. Thus, in the Answer, the Examiner relies on Buchanan’s annular groove 36 as the recessed portion of the seal bar. However, the Examiner also provides an annotated figure indicating it is surface 35 that forms both the claimed recessed surface and the claimed curved surfaces. *Id.*

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<sup>2</sup> Buchanan, US 5,855,544, iss. Jan. 5, 1999.

<sup>3</sup> Barry et al., US 9,752,024 B2, iss. Sept. 5, 2017.

Regardless of whether the Examiner is relying on element 35 or 36 in Buchanan, we agree with Appellant that the Examiner has not established that Buchanan teaches a seal bar with the structure claimed, under the broadest reasonable interpretation of the claim. *See* Appeal Br. 10–13; *see also* Reply Br. 3–9. In particular, we determined the Examiner erred in relying on the same surface as both the claimed recessed surface and the claimed curved surfaces.

During prosecution, the scope of the claims is determined by giving claims “their broadest reasonable interpretation consistent with the specification” and “in light of the specification as it would be interpreted by one of ordinary skill in the art.” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004). First, our interpretation of the claim is guided by a plain reading of the claim. Claim 1 first requires “a recessed surface a distance (x) behind the front surface, the recessed surface having a first end and an opposing second end.” Claim 1 then requires “a curved surface at each opposing end, the curved surface extending between the front surface and the recessed surface.” Because the claim requires that each curved surface is situated between the front surface and the recessed surface, one of ordinary skill in the art would understand that the curved surfaces are separate surfaces from either the front surface or the recessed surface. Thus, one of ordinary skill in the art would understand the claim to require four separate surfaces: a front surface, a recessed surface, a first curved surface at a first end of the recessed surface and extending between the front surface and the recessed surface, and a second curved surface at a second end of the recessed surface and extending between the front surface and the recessed surface.

Further, we find that this interpretation of the claim is consistent with how the surfaces are described in the written disclosure. In each embodiment depicted in the Figures, one of ordinary skill in the art would recognize four surfaces as denoted above. *See Spec. Figs. 3–8.* This configuration is described with respect to Figure 4, for example, as including four separate surfaces on each seal bar: front surface 24b; recessed surface 26b; and curved surfaces 32, 34. *See id.* ¶¶ 111–114.

Thus, we determined that under the broadest reasonable interpretation of the claim, claim 1 requires the positioning of a seal bar that includes the four surfaces discussed above, i.e., a front surface, a recessed surface, and two curved surfaces between the recessed surface and the front surface. Under this interpretation, the Examiner has failed to establish that Buchanan teaches opposing seal bars as required by the claim. The Examiner identifies either element 35 or element 36 as both the recessed surface and the curved surface in Buchanan. However, one of ordinary skill in the art would understand that each of these elements includes only one surface, whether it is described as a recessed surface or a curved surface. Because these elements are one surface, we fail to see how Buchanan discloses separate curved surfaces that extend between a recessed surface and the front surface of each seal bar.

Based on the foregoing, we determine the Examiner erred in determining that Buchanan discloses seal bars as claimed. Further, the Examiner has not provided any reason based on the art of record or otherwise, that shows that providing opposing seal bars with the structure required by the claim would have been obvious. Accordingly, we do not

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sustain the rejection of claim 1. For the same reasons, we do not sustain the rejection of dependent claims 2 and 7–15.

### CONCLUSION

We REVERSE the rejection of claims 1, 2, and 7–15.

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 2, 7–15	103	Buchanan, Barry		1, 2, 7–15

REVERSED