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DILWORTH IP, LLC 2 CORPORATE DRIVE, SUITE 206 TRUMBULL, CT 06611			LETTMAN, BRYAN MATTHEW	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID C. RHOADS

Appeal 2017-004642
Application 12/831,789
Technology Center 3700

Before JOHN C. KERINS, EDWARD A. BROWN, and
ARTHUR M. PESLAK, *Administrative Patent Judges*.

PESLAK, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

David C. Rhoads (“Appellant”) appeals under 35 U.S.C. § 134(a) from the Examiner’s decision rejecting claims 1, 2, 5, 6, 8, 10, 11, 14, 17, and 19.¹ An oral hearing was held on January 8, 2019. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ Haldex Brake Corporation is identified as the real party in interest. Appeal Br. 2.

THE CLAIMED SUBJECT MATTER

Claim 1, reproduced below, is illustrative of the claimed subject matter.

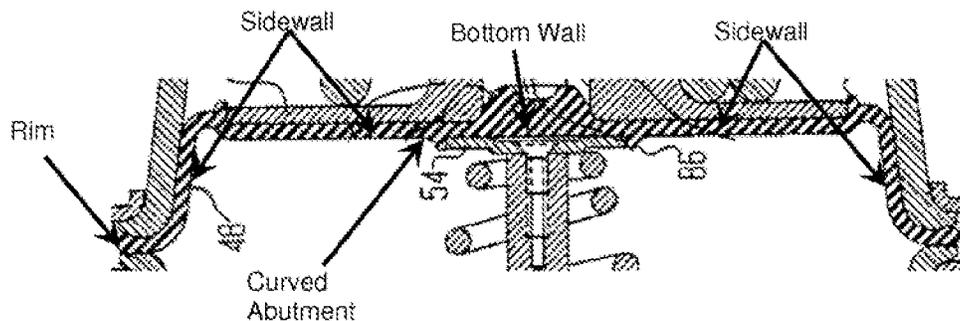
1. A spring brake actuator comprising:
 - a push rod assembly including a push rod plate, said push rod plate having a distal surface, a circumferential edge, and a proximal surface opposite the distal surface;
 - a diaphragm comprising:
 - a rim projecting from said diaphragm for engaging a housing containing said push rod plate,
 - a bottom wall having an interior surface for engaging said push rod plate, and
 - a sidewall connecting said projecting rim with said bottom wall via a curved abutment;
 - at least one flange extending in an axial direction from a periphery of the interior surface of the bottom wall of said diaphragm, adjacent to the curved abutment of the sidewall, to a distal end terminating at or beyond the proximal surface of the push rod plate in the axial direction, the at least one flange including an inner wall adjacent to and at least partially circumscribing the circumferential edge of the push rod plate, the inner wall terminating at the distal end radially outboard of the circumferential edge of the push rod plate; and
 - an adhesive between said diaphragm and the distal surface of said push rod plate;
 - wherein said adhesive maintains an attachment and a seal between said diaphragm and said push rod plate keeping said diaphragm and said push rod plate in line with each other.

REJECTION

Claims 1, 2, 5, 6, 8, 10, 11, 14, 17, and 19 are rejected under 35 U.S.C. § 103(a) as unpatentable over Ware (US 4,860,640, issued Aug. 29, 1989) and Coble (US 4,936,758, issued June 26, 1990).

DISCUSSION

The Examiner relies on Ware for teaching most of the limitations of claim 1. Final Act. 3–4. The Examiner apparently relies on annular rib 86 as corresponding to both the recited flange and the curved abutment. *Id.* In support of the rejection, the Examiner provides the following annotated version of a portion of Ware’s Figure 1:



Id. at 4. This drawing illustrates the Examiner’s interpretation of the sidewalls and bottom wall of Ware’s diaphragm 48. *See also* Ans. 3.

Appellant contends that the rejection is based on “a strained and overly broad interpretation of the claims with respect to the prior art.” Appeal Br. 7. Among Appellant’s arguments is that Ware’s rib 86, which “the Examiner considers . . . to be an abutment between a curved sidewall and a bottom wall . . . is not abutting between the two at all. Instead, the rib 86 merely projects from a flat portion of the diaphragm 48 far from the sidewall.” *Id.* at 8. The Examiner responds by maintaining the position that

Ware's sidewalls begin adjacent to the "bottom wall" as shown in the drawing reproduced above. Ans. 3. Appellant argues in the Reply Brief that "the Examiner takes an unreasonable interpretation of Ware and suggests that the sidewall forms both the side of the diaphragm and part of the bottom of the diaphragm One [of ordinary skill] in the art would not understand Ware in this way." Reply Br. 2. For the following reason, we do not sustain the rejection.

Appellant's Figure 2 illustrates diaphragm 130. *See* Spec. ¶ 33; Fig. 2. Diaphragm 130 comprises bottom wall 240 and side wall 230. Spec. ¶ 33. As can be seen in Appellant's Figure 2, sidewall 230 extends in a generally vertical direction from bottom wall 240. *See* Spec. Fig. 2. The Examiner interprets the "bottom wall" of Ware's diaphragm 48 as the central horizontal portion only. *See* Final Act. 4. The Examiner interprets the sidewalls of Ware's diaphragm as including a substantially horizontal portion extending from Ware's "bottom wall" and then transitioning in a generally vertical direction at the left and right side of diaphragm 48. *Id.* The Examiner does not adequately explain how one of ordinary skill in the art would reasonably understand that the claimed sidewall corresponds to a sidewall that includes a substantially horizontal portion of Ware's diaphragm in addition to a generally vertical portion. We agree with Appellant that the rejection is based on an unreasonably broad and strained interpretation of the term "sidewall." Due to this unreasonably broad claim construction, the Examiner's finding that Ware discloses "at least one flange . . . adjacent to the curved abutment of the sidewall" is not supported by the disclosure in Ware. Therefore, we cannot sustain the rejection of claim 1. We also do not

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sustain the rejection of claims 2, 5, 6, and 8 which depend from claim 1 for the same reasons.

The Examiner's rejections of independent claims 10 and 19 are likewise based on the same unreasonable interpretation of the term "sidewall" discussed above. Final Act. 5–8. We do not sustain the rejections of claims 10 and 19 for the same reasons stated above for claim 1. We also do not sustain the rejection of claims 11, 14, and 17 which depend from claim 10 for the same reasons.

DECISION

The Examiner's decision rejecting claims 1, 2, 5, 6, 8, 10, 11, 14, 17, and 19 is reversed.

REVERSED