UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/355,562	11/18/2016	Yang Bae Park	22150.0415U1	2355

23859 7590 12/27/2019

Ballard Spahr LLP
SUITE 1000
999 PEACHTREE STREET
ATLANTA, GA 30309-3915

EXAMINER	
CARY, KELSEY E	

ART UNIT	PAPER NUMBER
3753	

NOTIFICATION DATE	DELIVERY MODE
12/27/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

USpatentmail@ballardspahr.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte YANG BAE PARK

Appeal 2019-002801
Application 15/355,562
Technology Center 3700

Before JOHN C. KERINS, CHARLES N. GREENHUT, and MICHAEL J. FITZPATRICK, *Administrative Patent Judges*.

FITZPATRICK, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant, Victaulic Company,[1] appeals under 35 U.S.C. § 134(a) from the Examiner's final decision rejecting claims 1–32, which constitute all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

[1] Appellant is the "applicant" under 37 C.F.R. § 1.42(b) and identifies itself as the sole real party in interest. Appeal Br. 1.

STATEMENT OF THE CASE

The Specification

The Specification's disclosure "relates to fluid control devices that are combinations of valves and mechanical couplings."

The Claims

Claims 1–32 are rejected. Final Act. 1. Claim 1 is representative and reproduced below with emphasis added.

> 1. A valve for controlling flow through pipe elements, said valve comprising:
>
> a valve housing surrounding and defining a bore;
>
> a valve closing member mounted within said bore, said valve closing member being rotatable about an axis of rotation between an open position permitting flow through said bore and a closed position preventing flow through said bore;
>
> first and second lugs mounted in spaced relation to one another on said valve closing member, said lugs defining respective apertures aligned with said axis of rotation;
>
> first and second shafts extending in opposite directions along said axis of rotation, said first shaft being received within said aperture of said first lug, said second shaft being received within said aperture of said second lug;
>
> first and second bearings mounted on said valve housing diametrically opposite to one another, said first and second bearings respectively defining first and second passages through said valve housing, said first and second passages being aligned with said axis of rotation, said first bearing receiving said first shaft, said second bearing receiving said second shaft; wherein
>
> each said shaft has a diameter at a first end larger than a diameter at a second end, *said first end of first shaft engaging and being retained within said valve housing by said first lug, said first end of said second shaft engaging and being retained within said valve housing by said second lug*.

Appeal Br. 18–19 (emphasis added).

The Examiner's Rejections

The rejections before us are:

1. claims 1–5 and 31, under 35 U.S.C. § 102(a)(1), as anticipated by Urban[2] (Final Act. 3);

2. claims 6–9, under 35 U.S.C. § 103, as unpatentable over Urban and Borcherdt[3] (*id.* at 6);

3. claim 15, under 35 U.S.C. § 103, as unpatentable over Urban and Shimada[4] (*id.* at 8);

4. claims 10–14, 16–21, 26–29, and 32, under 35 U.S.C. § 103, as unpatentable over Urban and McLennan[5] (*id.*);

5. claims 22–25, under 35 U.S.C. § 103, as unpatentable over Urban, McLennan, and Borcherdt (*id.* at 14); and

6. claim 30, under 35 U.S.C. § 103, as unpatentable over Urban, McLennan, and Shimada (*id.* at 16).

DISCUSSION

Claim 1 recites "said first end of first shaft engaging and being retained within said valve housing by said first lug, said first end of said second shaft engaging and being retained within said valve housing by said second lug." Appeal Br. 19. Independent claim 16 recites the same limitation. *Id.* at 23. The sole remaining independent claim, claim 31, is directed to a method that includes corresponding steps, reciting "retaining

[2] US 3,528,448, issued Sept. 15, 1970 ("Urban").
[3] US 3,260,496, issued July 12, 1966 ("Borcherdt").
[4] US 2006/0000997 A1, published Jan. 5, 2006 ("Shimada").
[5] US 5,018,548, issued May 28, 1991 ("McLennan").

said first shaft within said housing using said first lug" and "retaining said second shaft within said housing using said second lug."

The Examiner relies exclusively on Urban as teaching these limitations. *See* Final Act. 4 (regarding claim 1), 5 (regarding claim 31), 11 (regarding claim 16). For example, with respect to claim 1, the Examiner finds that Urban teaches: "said first end (62) of first shaft (60) engaging and being retained within said valve housing (10) by said first lug (70), said first end (107) of said second shaft (105) engaging and being retained within said valve housing (10) by said second lug 115 (Col. 5, lines 15–19; lines 35–47; lines 69–75; Col. 6, lines 15–19; see Figure 2)." The structure identified by the Examiner is shown in Figure 2 of Urban, which is reproduced below.

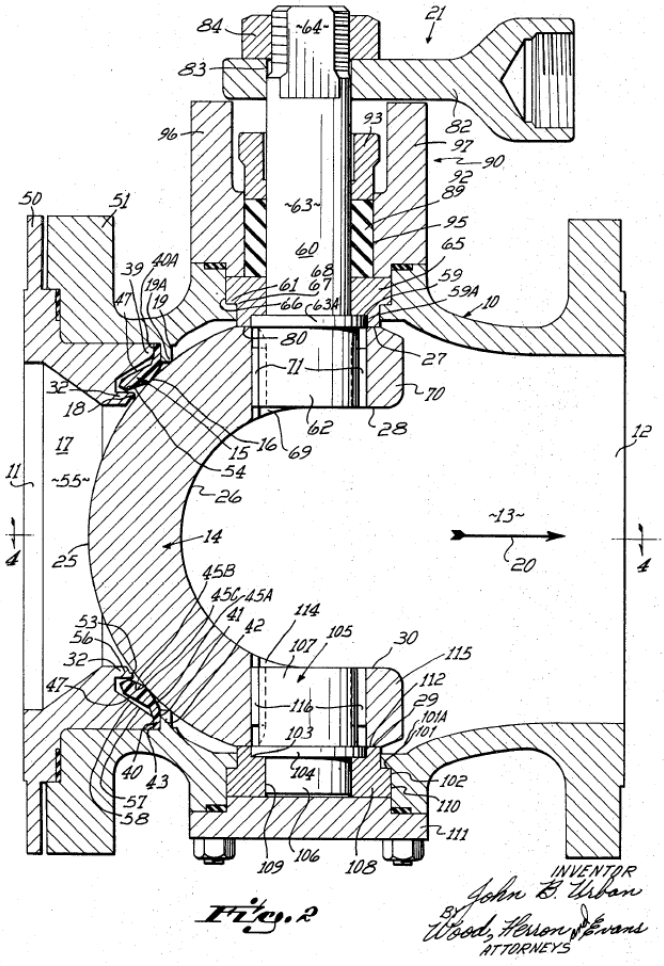

Figure 2 of Urban, reproduced above, shows a cross-sectional view of a slurry valve. Urban 2:56–59.

Appellant argues that Urban's "shafts 60 and 105 are retained within the valve housing by engagement with bearings 65 and 108, respectively, and not by engagement between the shafts and the lugs 70 and 30." Appeal Br. 5–6. It is clear that the bearings, in fact, retain the shaft ends, and the Examiner concedes this. Final Act. 2. The Examiner states, "[h]owever, just because the shafts are retained by the bearings does not mean they cannot also be retained by the lugs." *Id.* The Examiner finds that the asserted lugs 70 and 30 "engage an outer surface of the shafts, which provides redundant retaining of the shafts inside the housing." *Id.* Appellant has the better argument, given the actual disclosure of Urban.

> The most relevant portions of Urban state as follows:
>
> > The inner end 62 of the stem 60 is positioned within an opening 69 formed in the upper end 70 of the ball section 14. Both the inner end 62 and the opening 69 are axially slotted to receive keys 71 for preventing relative end of the pipeline rotational motion therebetween. . . .
> >
> > The inner end 107 of the pin 105 fits within a bore 114 formed in the lower end 115 of the ball section 14. The bore 114 and the inner end 107 of the pin 105 are similarly slotted to receive keys 116 for preventing relative rotational motion therebetween.

Urban 5:35–39, 6:14–19. Notably, the only discussion by Urban of restricting movement between the ends and the openings (i.e., the asserted lugs) is in regards to preventing relative rotational movement, which—per the Specification—is clearly a feature separate from retention. *Id.*; Spec. 15 ("The tapered section 94 engages a tapered aperture 48a in lug 48 and thus requires no additional features to retain the shaft 44 to the valve closing member 40. This shaft configuration *also* reduces rotational friction and is

self-compensating for wear." (emphasis added)). In sum, Urban does not state that the ends are positioned within the openings (i.e., the asserted lugs) through an interference fit or in some other manner through which the openings cause the ends to be retained therein. Urban 5:35–39, 6:14–19.

This deficiency is fatal to all of the rejections, which we accordingly reverse.

SUMMARY

Claims Rejected	35 U.S.C.	Reference(s)	Affirmed	Reversed
1–5, 31	§ 102(a)(1)	Urban		1–5, 31
6–9	§ 103	Urban, Borcherdt		6–9
15	§ 103	Urban, Shimada		15
10–14, 16–21, 26–29, 32	§ 103	Urban, McLennan		10–14, 16–21, 26–29, 32
22–25	§ 103	Urban, McLennan, Borcherdt		22–25
30	§ 103	Urban, McLennan, Shimada		30
Overall Outcome				1–32

REVERSED