



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.
15/612,484	06/02/2017	Wen Wang	139650.235	4458
27192	7590	09/28/2020	EXAMINER	
FRANCIS C. HAND CARELLA, BYRNE, CECCHI, ET AL 5 BECKER FARM ROAD ROSELAND, NJ 07068-1739			SANCHEZ-MEDINA, REINALDO	
			ART UNIT	PAPER NUMBER
			3753	
			MAIL DATE	DELIVERY MODE
			09/28/2020	PAPER

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.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte WEN WANG and BRION GOMPPER

Appeal 2020-001316
Application 15/612,484
Technology Center 3700

Before PHILLIP J. KAUFFMAN, ANNETTE R. REIMERS, and
TARA L. HUTCHINGS, *Administrative Patent Judges*.

KAUFFMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner’s decision to reject claims 1–9.² Final Act. 4–9. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ 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 Component Hardware Group, Inc. Appeal Br. 1.

² The Examiner addressed claims 1–11 in the Final Office Action. In an “Amendment After Appeal” dated September 20, 2019, Appellant cancelled claims 10 and 11.

The claims are directed to a valve for a faucet assembly. Spec. 1:4.
Claims 1 and 7 are independent. Claim 1 is reproduced below.

1. A valve for a faucet assembly comprising
 - a bonnet of tubular shape having a pair of diametrically disposed openings in a periphery thereof;
 - a first valve body coaxially disposed in said bonnet in stationary relation thereto, said valve body defining a pair of diametrically disposed passages therein for passage of water therethrough from a source of water;
 - a second valve body coaxially disposed in said bonnet in contact with said first body, said second valve body defining a pair of passages communicating with said openings in said bonnet;
 - a spiral retaining ring biasing said first valve body into contact with said second valve body; and
 - a stem rotatably mounted in and projecting from said bonnet, said stem being operatively connected to said second valve body for rotating said second valve body between a first position with said pair of passages therein aligned with said diametrically disposed passages in said first valve body to allow water from the source of water to flow through said first valve body and through said openings in said bonnet and a second position with said pair of passages therein out of alignment with said diametrically disposed passages in said first valve body to block a flow of water from the source of water from flowing through said first valve body.

REJECTIONS

I. Claims 1, 2, and 5–7 are rejected under 35 U.S.C. § 103 as unpatentable over Anthony (US 3,831,621, issued Aug. 27, 1974) and Rabby (US 5,642,754, issued July 1, 1997). Final Act. 5–7.

II. Claims 3, 4, 8, and 9 are rejected under 35 U.S.C. § 103 as unpatentable over Anthony, Rabby, and Rudelick (US 4,564,040, issued Jan. 14, 1986). Final Act. 7–9.

ANALYSIS

Objection to the Drawing

Independent claim 1 recites a valve including “a spiral retaining ring biasing said first valve body into contact with said second valve body.”

Independent claim 7 includes similar language.

The Examiner objects to Figure 2 under 37 C.F.R. § 1.83 as failing to depict the “spiral retaining ring” recited in independent claims 1 and 7.

Final Act. 4. Specifically, the Examiner finds that retaining ring 32, as depicted in Figure 2, is planar rather than spiral. Final Act. 4; Ans. 7.

Appellant contends that the ends of retaining ring 32, as depicted in Figure 2, are in different planes and that the contour lines of retaining ring 32 indicate that the ring is twisted. Appeal Br. 6.

Appellant asks us to review the objection. Appeal Br. 5–7. Ordinarily, an objection to a drawing under 37 C.F.R. § 1.83(a) is reviewable by timely petition under 37 C.F.R. § 1.113 rather than by appeal to the Patent Trial and Appeal Board. *Ex parte Frye*, 94 USPQ2d 1072, 1077–78 (BPAI 2010); *see also* 37 C.F.R. § 1.113; MANUAL OF PATENT EXAMINING PROCEDURE (“MPEP”) § 1201 (9th edition, rev. June 2020).³ However, “when the objection is ‘determinative of the rejection’ the matter may be addressed by the Board.” MPEP § 1201 (citing *In re Hengehold*, 440 F.2d 1395, 1403 (CCPA 1971)).

The Examiner rejects certain claims as detailed above. Final Act. 4–9; Ans. 7–9. Appellant contends that the rejections are in error because neither Anthony nor Rabby teaches or suggests a spiral retaining ring

³ All reference to the MPEP will be to the most recent edition and revision, unless otherwise noted.

“biasing said first valve body into contact with said second body,” as claimed. Appeal Br. 7–10; Reply Br. 1–3. Consequently, we may address the objection because whether Figure 2 depicts a spiral retaining ring is determinative, at least in part, of the rejections. MPEP § 1201.

As discussed earlier, claims 1 and 7 recite a spiral retaining ring “biasing said first valve body into contact with said second valve body.” Figure 2 depicts retaining ring 32. Spec. 5:12–16. Figures 3–5 depict retaining ring 32 compressed in circumferential groove 33 of bonnet 16, with ring 32 biasing first valve body 18 into contact with second valve body 19. *Id.*; *see also* Spec. 6:17–23.

We acknowledge that when Figure 2 is viewed in isolation, it is a close call as to whether retaining ring 32 is in a single plane or not. This is true because as retaining ring 32 appears in perspective in Figure 2, it has a shallow ramp angle, and it is too thin to allow shade lines further defining the shape of the ring. However, we must not view Figure 2 in isolation. As Appellant correctly points out, the Specification clearly and consistently teaches that retaining ring 32 is spiral and provides a biasing force. Appeal Br. 5–6; *see, e.g.*, Spec. 5:12–22 (“spiral retaining ring 32” biases valve body 18), 6:17–7:3 (“spiral retaining ring 32” places a compressive force against valve body 18). Viewing Figure 2 in light of these disclosures, a person of ordinary skill in the art would understand that the end of spiral retaining ring 32 nearest the plane of the drawing is closer than the opposite end by about the thickness of the ring. Therefore, the Examiner does not persuade us that Figure 2 fails to depict the spiral retaining ring recited in claims 1 and 7. On this basis, we reverse the objection to the drawing.

Rejection I

Appellant contends that neither Anthony nor Rabby teaches or suggests a spiral retaining ring “biasing said first valve body into contact with said second body,” as recited in claims 1 and 7. Appeal Br. 7–10; Reply Br. 1–3. For the reasons that follow, we agree with Appellant.

As noted earlier, the Examiner concludes that the subject matter of independent claims 1 and 7 would have been obvious from the combined teachings of Anthony and Rabby. Final Act. 4–9; Ans. 7–9. Specifically, the Examiner concludes that it would have been obvious to substitute Rabby’s retaining ring 86 for Anthony’s washer 33. Final Act. 5, 7.

The Examiner finds that Anthony’s retaining ring (washer 33) biases a second valve body (rotor disk 22) into a first valve body (stator disk 27). Final Act. 5, 6–7; Ans. 7–8. This finding is not supported by the reference.

Anthony discloses a valve cartridge 7 having two valve bodies (rotor disk 22, stator disk 27). Anthony 2:62–63, 3:35–36, 3:51–53, 4:5–11, Figs. 1–4. During assembly, Anthony’s washer 33 is inwardly crimped so that it is “fixed in position” in circular recess 34, and in this position, washer 33 places second rubber “O” ring 32 under compression so that it provides a compressive force on the valve bodies (rotor disk 22, stator disk 27). Anthony 4:12–27, Figs. 2, 3; *see also* Appeal Br. 8 (noting that washer 33 is positioned in a groove).

In sum, Anthony’s retaining ring (washer 33) is in a fixed position within circular recess 34 and, as such, cannot provide a biasing force. Rather, it is Anthony’s second “O” ring 32 that provides a biasing force to the valve bodies.

The Examiner finds that Rabby's spiral wound retaining ring 86 corresponds to a spiral retaining ring and provides a biasing force as claimed. Ans. 8; *see also* Final Act. 5, 7 (reasoning that substituting Rabby's ring 86 for Anthony's washer 33 would provide a biasing force). This finding is not supported by the reference.

Rabby describes a ball valve that includes a spiral wound retaining ring 86. Rabby 3:20–22, 3:41–44, 4:39–42, Fig. 1. Retaining ring 86 is positioned in annular groove 82 so that ring 86 prevents removal of locking ring 84. Rabby 4:39–42, Fig. 1. In light of these disclosures, Rabby does not disclose that retaining ring 86 provides a biasing force. Rather, Rabby discloses that ring 86 fits into a groove (annular groove 82) so that it prevents removal of something (locking ring 84).

As explained, the Examiner has not demonstrated that Rabby's retaining ring 86 provides a biasing force. Consequently, Rabby does not teach or suggest a spiral retaining ring that biases a first valve into contact with a second valve as claimed. Further, even if Rabby's retaining ring 86 produces a biasing force due to its spiral configuration, it could not apply that force to a valve body when positioned within Anthony's circular recess 34, as proposed by the Examiner, because, in view of Anthony's teachings, the modified retaining ring would be in a fixed position within circular recess 34 and, as such, would not provide a biasing force.

For these reasons, we agree with Appellant that neither Anthony nor Rabby teaches or suggests a spiral retaining ring “biasing said first valve body into contact with said second body,” as recited in claims 1 and 7. *See* Appeal Br. 7–10; Reply Br. 1–3. We do not sustain the rejection of claims

1, 2, and 5–7 under 35 U.S.C. § 103 as unpatentable over Anthony and Rabby.

Rejection II

The Examiner concludes that the subject matter of claims 3, 4, 8, and 9 would have been obvious from the combined teachings of Anthony, Rabby, and Rudelick. Final Act. 7–8. The claims at issue depend ultimately from either independent claim 1 or independent claim 7. The Examiner does not rely on Rudelick to remedy the deficiencies in the combined teachings of Anthony and Rabby as applied to claims 1 and 7. *Id.* Therefore, we do not sustain the rejection of claims 3, 4, 8, and 9 under 35 U.S.C. § 103 as unpatentable over Anthony, Rabby, and Rudelick.

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1, 2, 5–7	103	Anthony, Rabby		1, 2, 5–7
3, 4, 8, 9	103	Antony, Rabby, Rudelick		3, 4, 8, 9
Overall Outcome				1–9

REVERSED