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EXAMINER	
HICKS, ANGELISA	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BRADFORD HAINES, BRIAN WAYNE HOWARD, MICHAEL P. NELSON, and JAN JUREWICZ

Appeal 2019-001696
Application 13/960,653
Technology Center 3700

Before CHARLES N. GREENHUT, BRANDON J. WARNER, and ALYSSA A. FINAMORE, *Administrative Patent Judges.*

GREENHUT, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant,[1] Flowserve Management Company, appeals from the Examiner's decision to reject claims 1–23. Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use the word "Appellant" to refer to "Applicant" as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Flowserve Corporation. Appeal Br. 2.

CLAIMED SUBJECT MATTER

The claims are directed to a method of attaching or replacing a plug assembly. Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A method of replacing or attaching a plug head to a plug stem comprising:
>
> providing a valve plug having a plug stem, a plug stem base, a plug head, and a fastening mechanism for fastening the plug stem base to the plug head, the plug head and the plug stem base each having a diameter greater than a diameter of a major portion of the plug stem, the plug stem base having a first beveled edge, the plug head having a second beveled edge, the fastening mechanism comprising at least two retainer clamps that surround and engage the first beveled edge of the plug stem base and the second beveled edge of the plug head;
>
> coupling the fastening mechanism around the plug stem base and the plug head; and
>
> tightening the fastening mechanism against the first beveled edge of the plug stem base and the second beveled edge of the plug head to provide an interference fit between the plug stem base and the plug head.

REJECTIONS

Claims 1–3, 5, 6, 8–11, 15, 17, 18, 20, and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Strong (US Pat. 1,763,486, issued June 10, 1930) and Leighty (US Pat. 1,093,868, issued Apr. 21, 1914). Final Act. 4.

Claims 4 and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Strong, Leighty, and Horning (US Pat. 1,431,662, issued Oct. 10, 1922). Final Act. 8.

Claims 7, 12–14, 16, 19, and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Strong, Leighty, and Robison (US Pat. 6,793,198 B2, issued Sept. 21, 2004). Final Act. 8, 11.

OPINION

The claims subject to the rejection based on Strong and Leighty are argued as a group, focusing on limitations common to independent claims 1 and 18, and without separate arguments concerning the dependent claims. App. Br. 4–6; Reply Br. 3–5. Claim 1 is representative under 37 C.F.R. § 41.37(c)(1)(iv), and the claims subject to the other rejections are presumed to be argued based only on dependency. *See, e.g.*, App. Br. 6.

The Examiner correctly found Strong to disclose a valve that in its ordinary course of operation would perform the basic method[2] according to claim 1, but with a threaded (at 24) "fastening mechanism," sleeve 26,[3] coupling button portion 29, the "plug head," with valve portion 22, the "plug stem base," instead of a fastening mechanism that relies on a exerting a force against beveled edges to join the components. Final Act. 4. The Examiner correctly found Leighty to teach that a process for coupling components in this manner was well-known in the art. Final Act. 5 (discussing the embodiment depicted in Leighty Figs. 1–4). Expounding on the reasons to combine the reference teachings in response to Appellant's assertion there is no motivation to do so, the Examiner states:

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[2] If a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be unpatentable over the prior art device. *In re King*, 801 F.2d 1324, 1326–27 (Fed. Cir. 1986).

[3] It is noted that the Examiner refers to reference numeral 24, which refers to the threads as opposed to coupling sleeve 26. Final Act. 4.

> [A]s described in Leighty, page 1, lines 18-23, the reason to use such a coupling/decoupling means is to "provide means which are simple in construction, economical in manufacture, and which will at the same time be readily adjustable to effect a proper coupling or joint and also permit the joint to be quickly uncoupled." Thus, the rationale behind the modification of Strong by Leighty is not assertion, but a more simplistic, economical, easily adjustable and quicker method of coupling/decoupling the plug stem base and plug head.

Ans. 11–12.

We agree with and adopt as our own this well-reasoned analysis by the Examiner. It is true that the different forms of coupling, threaded versus wedge for interference fitting, may each have their own advantages and disadvantages (App. Br. 6). However this fact, without more, does not demonstrate that weighing those advantages and disadvantages, and selecting an appropriate mechanism to achieve what Appellant recognizes is a very similar result in Strong's valve,[4] would not have been obvious to one *skilled* in the art. The requisite level of skill must be attributed to the hypothetical artisan described in 35 U.S.C. § 103(a). *In re Sovish*, 769 F.2d 738, 742 (Fed. Cir. 1985). The Examiner's proposed combination is not set forth to "render obvious all possible solutions to [Appellant's] problem." App. Br. 5 (emphasis omitted). Rather, the Examiner's proposed combination involves the mere substitution of relatively simple, century-old, mechanical components. The fact that some amount of judgment and mechanical skill may be required to arrive at a particular combination (App. Br. 5) does not necessarily mean that particular combination constitutes a

[4] "[T]he disclosure of Strong might seek to solve a similar problem." App. Br. 5.

nonobvious invention. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 10–12 (1966) (discussing *Hotchkiss v. Greenwood*, 11 How. 248 (1850)). One of ordinary skill can use his or her ordinary skill, creativity, and common sense to make the necessary adjustments and further modifications to result in a properly functioning device. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) ("[T]he [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for [an examiner] can take account of the inferences and creative steps that a person of ordinary skill in the art would employ."). "It is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements" as Appellant suggests (App. Br. 5). *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012).

DECISION

The Examiner's rejections are affirmed.

FINALITY AND RESPONSE

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

AFFIRMED