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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SCOTT FERRAR

Appeal 2017-003244
Application 14/717,231
Technology Center 3700

Before CHARLES N. GREENHUT, JILL D. HILL, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

GREENHUT, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from a rejection of claims 16–23, 25–36, and 38–41. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

CLAIMED SUBJECT MATTER

The claims are directed to a vehicle mountable arm for a valve operating machine. Claim 16, reproduced below, is illustrative of the claimed subject matter:

16. A valve operating device, comprising:
 - a mounting for retaining the device to a vehicle;
 - a first arm having a first end and a second end, wherein the first end of the first arm is attached to the mounting at a first pivot that is rotatable about a first vertical axis;
 - a second arm having a first end and a second end, wherein the first end of the second arm is attached to the second end of the first arm at a second pivot that is rotatable about a second vertical axis;
 - a valve turning machine connected to the second end of the second arm;
 - a first brake at the first pivot for selectively locking and unlocking the first arm from rotating about the first pivot;
 - a second brake at the second pivot for selectively locking and unlocking the second arm from rotating about the second pivot; and
 - a control for controlling application and the release of the first brake or the second brake, wherein the first arm is locked from rotating about the first pivot with the first brake applied and the first arm is manually rotatable about the first pivot while the first brake is released and the second arm is locked from rotating about the second pivot with the second brake applied and the second arm is manually rotatable about the second pivot while the second brake is released, wherein the first arm is stable relative to the mounting when the first brake is applied and the valve turning machine is operating, wherein the second arm is stable relative to the first arm when the second brake is applied and the valve turning machine is operating, and wherein the control is positioned remote from the first brake and the second brake.

REFERENCES

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Bumueller	US 3,977,636	Aug. 31, 1976
Leete	US 5,101,862	Apr. 7, 1992
Twisselmann	US 6,471,165 B2	Oct. 29, 2002
Skorez	US 2004/0134674 A1	July 15, 2004
Hurley	US 7,334,606 B1	Feb. 26, 2008

REJECTIONS

Claims 16–22 and 29–35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurley and Bumueller.

Claims 16, 23, 26, 27, 29, 36, 39, and 40 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurley and Twisselmann.

Claims 25 and 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurley, Bumueller, and Skorez.

Claims 28 and 41 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hurley, Bumueller, and Leete.

OPINION

In the first obviousness rejection, the Examiner rejected claim 16 based on the obviousness of modifying *each* of the locking mechanisms 168,¹ 170, at Hurley's pivots 124, 144 with a braking mechanism of the type taught by Bumueller. Final Act. 3–5. Thus, Appellant's main argument (App. Br. 6–7), pointing out the absence of *two* brakes in Bumueller, is not particularly germane to the rejection set forth by the Examiner. Ans. 9–10.

¹ 168 is mislabeled 178 in Figure 13 of Hurley.

When considering obviousness, there is no limitation that a known technique or improvement cannot be applied to multiple locations when proposing to improve upon a known device. It is well-settled that the obviousness inquiry looks beyond individual reference teachings² and bodily incorporation.³

Appellant further contends that the secondary references, Bum Mueller and Twisselmann, in each obviousness rejection of claim 16, are non-analogous art. App. Br. 8–9, 11–12. With respect to both the Hurley-Bum Mueller and Hurley-Twisselmann rejections, Appellant contends that the *particular tool* held by the articulated arms, the valve turning machine, should be used to define the scope of relevant art for the obviousness inquiry. App. Br. 8–9.

Analogousness is determined in view of the Specification, with particular attention to the claimed invention and its purpose. *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992) (“If a reference disclosure has the same purpose as the *claimed* invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection”) (emphasis added). Appellant contends this *purpose* is the actuation of a valve operating device in particular. However, limitations pertaining to actual valve turning appear in only three limited instances in claim 16. These limitations do not contain any language to impose or imply specific

² “Non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references.” *In re Merck & Co.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986) (citation omitted).

³ “It is well-established that a determination of obviousness based on teachings from multiple references does not require an actual, physical substitution of elements.” *In re Mouttet*, 686 F.3d 1322, 1332 (Fed. Cir. 2012).

structural requirements of the remaining elements or overall structure claimed. First, the preamble provides a descriptive name, “[a] valve operating device,” to the collection of components set forth. Second, the physical attachment location of the valve turning machine is described: “a valve turning machine connected to the second end of the second arm.” Third, the overall goal of the collection of components comprising *the supporting structure* is described: “the first [and second] arm[s are] stable relative to the mounting [and first arm, respectively] when the first [and second] brake[s are] applied and the valve turning machine is operating.”

According to the Specification the problems confronted are circumventing obstacles to a target location and resisting force or torque at the end of an extension arm:

[The prior art-device] has limited mobility with respect to the vehicle. Where valves are positioned between various obstacles such as buildings, curbs, boulders, trees and the like, it may not be possible for the truck to reach a position where the valve operating machine may be positioned directly over the shaft leading to the valve.

...

Accordingly, there is a need for providing an extendible arm for supporting a valve operating machine over a valve stem positioned remotely from a vehicle that will retain the machine against all the forces applied to the end of the arm as a consequence of frequent and sudden changes in torque applied to the valve.

Spec. paras. 3, 5. These problems are not unique to valve turning machines per se. Thus, we cannot agree with Appellant that those devices that would have logically commended themselves to a skilled inventor’s attention in considering the problems faced would be confined to only those devices

dealing with valve actuation. Bum Mueller's device is expressly described as intended to hold a drill. As ground drilling certainly generates torque and force at the end of an extension arm Bum Mueller deals with Appellant's problem of stably resisting torque generated by a remotely held device. Bum Mueller col. 4, ll. 34–38.

Twisselmann's device is also designed to withstand forces and moments, but of a lower degree. Twisselmann col. 1, ll. 56–61. First, as discussed above, claim 16 does not include any limitations requiring the claimed structure to have any particular attributes or capabilities for withstanding the particular forces described in the portion of Appellant's Specification quoted above. Where the scope of the *claims*, i.e., “the subject matter sought to be patented,” is defined more broadly than in the Specification, so too must be the scope of prior art considered relevant for purposes of determining what “would have been obvious at the time the invention was made to *a person having ordinary skill in the art to which said subject matter pertains.*” See 35 U.S.C. § 103(a) (emphasis added); accord also *In re Clay, supra*. Second, even assuming such attributes or capabilities could somehow be implied by the express language of the claim, it has long been held that sizing componentry suitably for its intended purpose does not remove an invention from the realm of what would have been obvious to someone skilled in the mechanical arts. See, e.g., *Powers-Kennedy Co. v. Concrete Co.*, 282 US 175, 185 (1930) (“One skilled in the art would have the mechanical skill to understand that changes to form, materials or dimensions could be made to arrive at the strength and rigidity desired for the particular application.”); accord *In re ICON Health and Fitness, Inc.*, 496 F. 3d 1374, 1382 (Fed. Cir. 2007) (“One skilled in the art

would size the components from [the prior art] appropriately for Icon’s application, therefore producing an embodiment meeting Icon’s claims.”). Thus, we cannot agree with Appellant that differences in strength and rigidity would have led one skilled in the art of tool-holding boom arms to disregard devices such as Twisselmann’s simply because the particular form, materials, or dimensions employed could not withstand the particular forces and moments that must be withstood by the device described in Appellant’s Specification. Furthermore, although the microscope of Twisselmann may not generate moments of the particular magnitude involved in valve turning, Twisselmann, with its six axes of freedom, is very pertinent to the aspects of Appellant’s problem concerned with precisely positioning a tool around obstacles, for example, surgical personnel and equipment. *See* Twisselmann col. 1, ll. 29–32; col. 2, ll. 34–41; Spec, *supra*.

For the foregoing reasons, we agree with the Examiner (Ans. 10) that the articulated arms having braking elements of Bumueller and Twisselmann are reasonably pertinent to Appellant’s problem and therefore analogous art.

Running throughout Appellant’s arguments is the allegation of the Examiner’s reliance on hindsight. App. Br. 7–8, 10–11, 14–15. Appellant accuses the Examiner of responding to this argument with “typical boilerplate.” *See id.*; Reply. Br. 7. However, without any specific allegation of precisely what subject matter was allegedly gleaned only from Appellant’s Specification, it is unclear how the Examiner can respond to Appellant’s argument with anything more substantive. “Filing a Board appeal does not, unto itself, entitle an appellant to *de novo* review of all aspects of a rejection.” *See Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010)(precedential)(citations omitted); *see also* 37 C.F.R. §

41.37(c)(1)(iv) (“The arguments shall explain why the examiner erred as to each ground of rejection contested by appellant”). At best, Appellant appears to contend that neither Bumueller nor Twisselmann *expressly* disclose the benefit articulated by the Examiner in support of the Examiner’s proposed modification: remotely controlling the brake. Reply Br. 7; Final Act. 5, 6. However, one of the main purposes of hydraulically or electrically actuated brakes is the ability to control the brake from a remote location. Such notorious advantages of hydraulically or electrically actuated brakes and would have been apparent to the skilled artisan without an express disclosure. *See In re Jacoby*, 309 F.2d 513, 516 (CCPA 1962) (an artisan must be presumed to know something about the art apart from what the references disclose). In *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), the Court rejected the rigid requirement of an express teaching or suggestion or motivation to combine known elements in order to show obviousness.

Appellant raises an issue in the Reply Brief regarding the Examiner’s reliance on the hydraulic cylinder of Bumueller as the brake control that is untimely under 37 C.F.R. § 41.41. In any case, particularly in the context of Appellant’s own Specification, which uses the term “control” to refer to both the valve 98, an aspect of the hydraulic system, and the mechanically actuated button 104, (*see, e.g.*, para. 29) we cannot agree with Appellant that it was unreasonable for the Examiner to regard the generically recited “control” of claim 16 to include the Bumueller’s hydraulic cylinder because it is essentially a master cylinder for controlling the brake. We additionally note that the Examiner’s application of Leete for claims (28 and 41) directed to a more particular control structure is not contested by Appellant.

With regard to claims 17–19, Appellant merely reiterates the arguments addressed above without arguing the specific limitations introduced by these claims. App. Br. 13–17. Again, “[f]iling a Board appeal does not, unto itself, entitle an appellant to *de novo* review of all aspects of a rejection.” *See Ex parte Frye, supra*.

Turning to claim 23, Appellant’s argument that Twisselmann’s control is not on a valve turning machine (App. Br. 18) is unpersuasive for failing to consider the proposed combination incorporating Twisselmann’s control into Hurley’s valve turning machine.

Turning to claim 27, the fact that Appellant thought their arguments concerning independent claim 16 would be persuasive is not a sufficiently good cause to excuse the untimeliness of Appellant’s traversal of the official notice that wireless controls were well known. *See* App. Br. 19. Further, Appellant does not dispute this specific fact as required by such a traverse. Appellant’s assertion that “the limitations of claim 27, in combination with the claims [sic] from which they [sic] depend, are not well-known” does not address the Examiner’s specific finding regarding wireless signal transmission per se, being known. *Id.* The rejection is predicated on obviousness. Whether or not the entirety of the claimed subject matter was well-known is not the issue.

DECISION

The Examiner’s rejections are affirmed.

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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