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Table with 5 columns: APPLICATION NO., FILING DATE, FIRST NAMED INVENTOR, ATTORNEY DOCKET NO., CONFIRMATION NO.
13/537,245 06/29/2012 Brian Ray Dickinson TT111-34202/08 4974

63796 7590 01/31/2019
DINSMORE & SHOHL LLP
900 Wilshire Drive
Suite 300
TROY, MI 48084

Table with 1 column: EXAMINER

VON BUHR, MARIA N

Table with 2 columns: ART UNIT, PAPER NUMBER

2117

Table with 2 columns: NOTIFICATION DATE, DELIVERY MODE

01/31/2019

ELECTRONIC

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

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BRIAN RAY DICKINSON

Appeal 2017-002433
Application 13/537,245
Technology Center 2100

Before JEREMY J. CURCURI, JUSTIN BUSCH, and
KARA L. SZPONDOWSKI, *Administrative Patent Judges*.

CURCURI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant¹ appeals under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–17. Final Act. 1. We heard the appeal on January 9, 2019. We have jurisdiction under 35 U.S.C. § 6(b).

Claim 1 is rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Dickinson (US 7,500,318 B2; iss. Mar. 10, 2009). Final Act. 2–3.

Claims 2, 4, and 5 are rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Dickinson and Ogawa '976 (JP 2002-263976 A; publ. Sept. 17, 2002). Final Act. 3–4.

¹According to the Appellant, the real parties in interest are Toyota Motor Engineering & Manufacturing North America, Inc. and Toyota Motor Corporation. App. Br. 1.

Claim 3 is rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Dickinson and Rudolf (US 5,850,789; iss. Dec. 22, 1998). Final Act. 4.

Claims 6, 7, and 12 are rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Dickinson and Matsumoto (US 5,983,166; iss. Nov. 9, 1999). Final Act. 4–5.

Claims 8, 10, 11, 13, 15, and 16 are rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Dickinson, Matsumoto, and Ogawa '976. Final Act. 5.

Claims 9, 14, and 17 are rejected under pre-AIA 35 U.S.C. § 103(a) as obvious over Dickinson, Matsumoto, and Rudolf. Final Act. 5.

We affirm.

STATEMENT OF THE CASE

Appellant's invention relates to “a contrast target tool having a marker end that can be tracked by a digital imaging system and used to place a visible mark on a surface at a desired location.” Spec. ¶ 1. Claim 1 is illustrative and reproduced below:

1. A contrast target tool for locating and marking a desired location on a three-dimensional object, said contrast target tool comprising:
 - a target flange having a plurality of contrast targets thereon; and
 - a marker rigidly attached to and extending from said target flange, said marker having a marker end operable to produce a mark on the three-dimensional object;
 - said target flange with said marker operable to be viewed by a digital imaging system such that a present location of said marker end is determined, tracked in real time and provided to an operator in order to allow the operator to grasp said target flange and locate and place said marker end at the desired

location on the three-dimensional object and produce a mark thereon.

PRINCIPLES OF LAW

We review the appealed rejections for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential).

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida [v. Ag Pro, Inc.]*, 425 U.S. 273 (1976) and *Anderson's-Black Rock[, Inc. v. Pavement Salvage Co.]*, 396 U.S. 57 (1969) are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR Int'l Co. v. Teleflex, Inc., 550 U.S. 398, 417 (2007).

ANALYSIS

THE OBVIOUSNESS REJECTION OF CLAIM 1 OVER DICKINSON

Contentions

The Examiner concludes claim 1 is obvious over Dickinson. Final Act. 2–3. The Examiner finds “**Dickinson** does not specify that the disclosed tool adaptor is a *marker*, as instantly claimed, to *produce a mark* on the three-dimensional object.” Final Act. 2. The Examiner takes Official

Notice “as to the well-known nature of marking type tools in the manufacturing/machining arts.” Final Act. 2. The Examiner reasons

[i]t would have been obvious, to one having ordinary skill in the art, at the time the instant invention was made, to utilize any well-known such marking tool in the manufacturing environment of **Dickinson**, dependent upon the application of such manufacturing, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Final Act. 2 (citing *In re Leshin*, 277 F.2d 197 (CCPA 1960)); *see also* Adv. Act. 2 (“it would have been obvious to add a marker to the tool/target member of Dickinson”).

Appellant presents the following principal arguments:

i. “[T]he Examiner provides no prior art that teaches or fairly suggests a marker *rigidly attached to and extending from* a target flange of a contrast target tool.” App. Br. 5; *see also* Reply Br. 2 (“Dickinson is directed to the *opposite* of the current application as recited in the claims, i.e., Dickinson teaches away from the pending claims . . . the teachings of Dick[in]son and the current application are directed to two very different purposes”).

ii.

[T]he claims do not recite a target flange made from a known material, but that a combination of a target flange and a marker allows an operator to grasp the target flange, *locate* and place the marker end at the desired location on a three-dimensional object and produce a mark thereon.

App. Br. 8 (citing *Leshin*); *see also* Reply Br. 3 (“[T]he pending claims do not recite a target flange made from a known material.”).

iii. “Replacing the threaded rod with a marker would prevent secure attachment of the target flange to a component and render the invention of Dickinson unsatisfactory for its intended use.” App. Br. 8.

iv.

[A]dding a marker to the adapter 20 shown above would have no purpose except to mark a position next to items such as “as holes and studs within or on components, frame, tooling, etc.” that have been accurately located. Such a modification does not make sense and such a tool would not be useful.

App. Br. 9–10; *see also* Reply Br. 4.

In response, in the Examiner’s Answer, the Examiner further reasons further accuracy [of placement of manufacturing operations] would [have been] attainable either by marking first and then performing attachment/cutting, etc., and/or by attachment of the adapter of Dickinson to a surface and further marking of additional manufacturing locations. In other words, all the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods (attaching) with no change in their respective functions, and the combination would have yielded nothing more than predictable results to one of ordinary skill in the art at the time of the invention, i.e., one skilled in the art would have recognized that adding a marker to the adapter of Dickinson would have allowed for accurately marking surfaces during manufacturing.

Ans. 5.

The Examiner further reasons

it would have been obvious to one having ordinary skill in the art, at the time the instant invention was made, to utilize such well-known materials (markers of various known types) with the adapter of Dickinson for its intended purpose of accurately identifying locations on a surface upon which manufacturing operations are to take place.

Ans. 5.

The Examiner further reasons

The teaching of Dickinson that “allows a user to secure a contrast or reflective target relative to a desired location and yet provide freedom of movement such that the target location can be positioned as desired” allows for “locating and placing” the target member, and when modified by adding a marker tool, as would have been obvious to one having ordinary skill in the art, as addressed above, would result in a mark being placed where desired. Such functionality is “read-on” by the instant claim language.

Ans. 6.

The Examiner further reasons

the purpose of markers of various types (as shown at least by Ogawa and Rudolf, as detailed above) is to make marks at points on a manufactured surface, and the purpose of Dickinson is to accurately locate points on a manufactured surface. Therefore, modifying the adapter of Dickinson to accurately locate, and mark, points on a manufactured surface would have been obvious to one having ordinary skill in the art.

Ans. 6.

Our Review

We do not see any error in the Examiner’s findings. We concur with the Examiner’s conclusion of obviousness.

Dickinson discloses a “threaded attachment position adapter used for aiding in the accurate location measurement of items such as holes and studs within or on components, frames, tooling, etc.” Dickinson Abstract.

Dickinson discloses the adapter including a “target arm with a contrast or reflective target set thereon” to “aid in determining [an item’s] accurate location.” Dickinson Abstract. Put another way, Dickinson’s adaptor

performs the function of accurate location measurement of an item with respect to the contrast target set.

The Examiner has taken Official Notice of a marker for marking locations. Final Act. 2; *see also* Ans. 5 (citing Ogawa '976 Abstract, Figs. 1–2, marking punch 4; Rudolf Abstract, Fig. 3, pen 92). The marker performs the function of marking a location.

The marker for marking locations is readily-applicable to Dickinson's adaptor because Dickinson's contrast target set performs the function of accurate location measurement for any element fixedly or rigidly attached to the contrast target set, such as Dickinson's "fixedly attached [] sleeve." Dickinson Abstract. A skilled artisan would have understood that Dickinson's contrast target set would perform this same function for any other fixedly or rigidly attached item, such as the marker. At the same time, the marker still performs its same function of marking the location. In short, adding the marker to Dickinson's adapter would have been a predictable use of prior art elements according to their established functions—an obvious improvement. *See KSR*, 550 U.S. at 417; *see also* Ans. 5, 6.

Regarding Appellant's argument (i), this argument does not show any error in the Examiner's findings and conclusions because, as explained above, Dickinson combined with the Official Notice teaches the claimed subject matter. *See* Ans. 5. Further, although an alternative may be inferior to or less desirable than another, that alone is insufficient to teach away from the inferior alternative unless the disclosure criticizes, discredits, or otherwise discourages that alternative. *In re Fulton*, 391 F.3d 1195, 1200–01 (Fed. Cir. 2004). Here, to the extent accurate locating of a marker fixedly or rigidly attached to Dickinson's adaptor is inferior to or less desirable than

accurately locating the sleeve disclosed in Dickinson, we do not see where Dickinson criticizes, discredits, or otherwise discourages such an arrangement.

Regarding Appellant's argument (ii), this argument does not show any error in the Examiner's findings and conclusions because adding the marker to Dickinson's adapter would have been a predictable use of prior art elements according to their established functions—an obvious improvement. *See KSR*, 550 U.S. at 417; *see also* Ans. 5, 6.

Regarding Appellant's argument (iii), this argument does not show any error in the Examiner's findings and conclusions because Dickinson combined with Official Notice teaches adding the marker to Dickinson's adaptor and the proposed combination does not replace the sleeve and rod in Dickinson. *See Adv. Act. 2*; *see also* Ans. 6.

Regarding Appellant's argument (iv), this argument does not show any error in the Examiner's findings and conclusions because adding the marker to Dickinson's adaptor allows Dickinson's contrast target set to perform this same function for the sleeve or for the marker. Further, the sleeve and the marker may each be used individually such that the marker may mark any location and is not limited to marking locations near items accurately located by the sleeve.

We, therefore, sustain the rejection of claim 1.

THE REMAINING REJECTIONS

Appellant does not present separate arguments for the rejection of claims 2, 4, and 5 as obvious over Dickinson and Ogawa '976; the rejection of claim 3 as obvious over Dickinson and Rudolf; the rejection of claims 6,

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7, and 12 as obvious over Dickinson and Matsumoto; the rejection of claims 8, 10, 11, 13, 15, and 16 as obvious over Dickinson, Matsumoto, and Ogawa '976; or the rejection of claims 9, 14, and 17 as obvious over Dickinson, Matsumoto, and Rudolf.

Accordingly, for reasons discussed above when addressing claim 1, we also sustain the rejection of claims 2, 4, and 5 as obvious over Dickinson and Ogawa '976; the rejection of claim 3 as obvious over Dickinson and Rudolf; the rejection of claims 6, 7, and 12 as obvious over Dickinson and Matsumoto; the rejection of claims 8, 10, 11, 13, 15, and 16 as obvious over Dickinson, Matsumoto, and Ogawa '976; and the rejection of claims 9, 14, and 17 as obvious over Dickinson, Matsumoto, and Rudolf.

ORDER

The Examiner's decision rejecting claims 1–17 is affirmed.

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

AFFIRMED