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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* STEPHEN M. EVERARD,  
JAMES T. KIRCHEN, and MARC R. RISDALE

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Appeal 2018-003235<sup>1</sup>  
Application 14/443,077  
Technology Center 2400

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Before JASON V. MORGAN, ADAM J. PYONIN, and  
KARA L. SZPONDOWSKI, *Administrative Patent Judges*.

PYONIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's decision to reject all pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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<sup>1</sup> "The real party in interest is Illinois Tool Works, Inc." App. Br. 4.

## STATEMENT OF THE CASE

### *Introduction*

The Application is directed to a system, including an image capturing camera, for “verification of the installation of a component such as a side curtain air bag into a vehicle passenger compartment.” Abstract. Claims 1–20 are pending; of these, claims 1 and 18 are independent. *See* App. Br. 32–37. Claim 1 is reproduced below for reference (formatting modified and emphases added):

1. A verification system for the verification of the installation of a component having at least one hanger bracket attachable to a base plate utilizing an energy absorbing, rotatable fastener, wherein said hanger bracket and said base plate have an aperture for insertion therethrough of a portion of said fastener, said fastener includes an attachment portion for engaging said base plate in an energy absorbing relation and a head portion for securing said hanger bracket to said fastener, when said fastener is rotatable to a locked, energy absorbing, position after insertion of a portion thereof through said apertures in said hanger bracket and base plate; wherein said system comprises:

an image capturing camera to capture an image of the installation of the component in machine readable form;

*a machine readable medium including data representative of at least one hanger bracket attached to a base plate with an energy absorbing rotatable fastener rotated to its locked, energy absorbing position;*

a central processing unit for receiving data from said image capturing camera and said machine readable medium;

*said central processing unit for comparing said captured images to said representative data to determine the condition of said installation and deliver an output signal in response to said comparison.*

*References and Rejections*

The Examiner relies on the following prior art:

Pawlenko	US 2007/0009136 A1	Jan. 11, 2007
Wu	US 2011/0026823 A1	Feb. 3, 2011
Moed	US 2011/0211726 A1	Sept. 1, 2011
Ostergren	US 2012/0039687 A1	Feb. 16, 2012
Adams	US 2014/0099015 A1	Apr. 10, 2014

Claims 1–6, 9–13, 18, and 19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Adams and Ostergren. Final Act. 13.

Claims 7 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Adams, Ostergren, and Pawlenko. Final Act. 29.

Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Adams, Ostergren, and Wu. Final Act. 31.

Claims 15–17 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Adams, Ostergren, and Moed. Final Act. 33.

ANALYSIS

We have reviewed the Examiner’s rejections in light of Appellants’ arguments. Arguments Appellants could have made but chose not to make are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(iv) (2016). We are not persuaded the Examiner erred. We adopt the Examiner’s findings and analysis as our own, and we add the following for emphasis.

Appellants argue the Examiner’s rejection is in error, because there is “nothing in Ostergren (or Adams) that expressly or necessarily describes, teaches, or suggests comparing data representative of at least one hanger attached to a base plate with an energy absorbing rotatable fastener rotated to its energy absorbing position, such as recited in claim 1.” App. Br. 13.

Appellants further contend it would not have been obvious to combine the references as claimed, because “[a]ttempting to suggest that Adams would analyze an isolated fastener as described in Ostergren instead of the markings on the sock or cushion of Adams changes the principle of operation of Adams,” and “absent hindsight, the Applicant sees no reason, and the Office Action has not provided an adequate articulation of a reason, why a person of ordinary skill in the art would have been led to modify the cited references as suggested by the Office Action.” App. Br. 14, 16.

Appellants do not challenge the Examiner’s findings that “Adams shows that it is well known to inspect safety airbag installation[s] using image analysis methods” and “Ostergren teach[es] the hardware Appellant has claimed.” Ans. 34, 36; Adams Fig. 11, ¶¶ 5, 26; Ostergren Figs. 1, 12, 13. Thus, the issue presented by Appellants’ contentions is whether the Examiner properly relied on the combination of the references to teach the claims. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007) (“the question is whether a patent claiming the combination of elements of prior art is obvious”). Based on the record before us, we do not find Examiner erred in determining the limitations of claim 1 to be obvious in view of the combined teachings of Adams and Ostergren. *See* Ans. 31.

Adams teaches the benefits of comparing an image of an airbag installation with a master image, to verify the installation. *See, e.g.*, Adams ¶ 34. Appellants do not provide evidence or technical reasoning to show one of ordinary skill would not apply Adams’ visual inspection and comparison system to Ostergren’s teaching of an airbag fastener system having locked and unlocked positions. *See* Ans. 37–38; Ostergren ¶¶ 20, 37. Particularly, Appellants do not provide discussion or objective evidence of secondary

considerations, which would “operate[] as a beneficial check on hindsight.” *Cheese Systems, Inc. v. Tetra Pak Cheese and Powder Systems, Inc.*, 725 F.3d 1341, 1352 (Fed. Cir. 2013). Thus, we are not persuaded the claimed use of the image capturing camera with the hanger bracket, base plate, and fastener was “uniquely challenging or difficult for one of ordinary skill in the art” or “represented an unobvious step over the prior art.” *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007); *see also* Final Act. 18.

Further, Appellants do not persuade us that using Adams’ verification system to inspect other aspects of a car airbag assembly “changes the principle of operation of Adams,” “renders Adams unsatisfactory for its intended purpose,” or is taught away by Adams. *Contra* App. Br. 13–15 (emphasis omitted); *see* Ans. 32. The Examiner reasonably finds that, for one of ordinary skill, applying the “image taken using algorithm from Adams for the energy absorbing rotatable fastener rotated to its locked position of Ostergren will be an obvious act for computerized image inspection as this will provide predictable results” (Ans. 33) and will “make the [fastener] verification processes efficient and cost effective” (Final Act. 18).<sup>2</sup> We agree. *See KSR*, 550 U.S. 398 at 417 (“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.”).

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<sup>2</sup> Adams further teaches providing indicia on the hardware to be inspected, to improve the automated inspection process. Adams ¶ 31. The Examiner alternatively finds one of ordinary skill would apply these indicia to the hardware of Ostergren. *See* Final Act. 4. We agree, and find the claims—in light of the Specification—reasonably encompass this combination of Adams and Ostergren. *See* Fig. 9, Spec. ¶¶ 47–50.

Regarding dependent claims 3, 5, 10, and 11, Appellants do not challenge the Examiner's findings that Ostergren teaches the hardware configurations as claimed. *See* App. Br. 17–23; Ans. 31 (“Ostergren shows the hangers and fasteners claimed are well known.”); Ans. 43, 45 (“Ostergren teach[es] a configuration of hardware Appellant has claimed.”); *see also* Final Act. 6–12. For the reasons discussed above, we are not persuaded the Examiner erred in concluding one of ordinary skill would apply Adams' teachings—of comparing a captured image to a master image—to the recited hardware as taught by Ostergren, in the rejection of these dependent claims. *See* Ans. 39–46.

Accordingly, Appellants do not persuade us the examiner erred in concluding the combination of Adams and Ostergren renders obvious the limitations of independent claim 1, independent claim 18 which is argued for the same reasons as claim 1, and dependent claims 3, 5, 10, and 11. *See* Final Act. 23–30; Ans. 38. Appellants advance no further argument on the remaining claims; thus we are not persuaded of Examiner error for the same reasons discussed above. *See* App. Br. 30.

#### DECISION

The Examiner's decision rejecting claims 1–20 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)(iv).

AFFIRMED