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FASKEN MARTINEAU DUMOULIN, LLP STOCK EXCHANGE TOWER, SUITE 3700 P.O. BOX 242, 800 PLACE VICTORIA MONTREAL, QUEBEC H4Z 1E9 CANADA			KYEREME-TUAH, AKOSUA P	
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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* DENIS HOTTE, NICHOLAS DROLET, ALAIN MARTEL,  
RICHARD GAGNON, and CLAUDE LEJEUNE

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Appeal 2019-002999  
Application 14/485,051  
Technology Center 3600

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BEFORE JOSEPH L. DIXON, KRISTEN L. DROESCH, and  
CATHERINE SHIANG, *Administrative Patent Judges*.

DROESCH, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision rejecting claims 1, 6, 11, and 15<sup>2</sup>. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM .

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<sup>1</sup> 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 CENTRE DE RECHERCHE INDUSTRIELLE DU QUEBEC. Appeal Br. 2.

<sup>2</sup> Dependent claims 2–5, 7–10, 12–14, and 16–18 were cancelled in an amendment filed after the Final Rejection.

### CLAIMED SUBJECT MATTER

The claims are directed to augmented reality methods and apparatus for assisting an operator to perform tasks on moving objects. *See* Spec. ¶ 1; Abstract. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. An augmented reality method for assisting an operator to perform a task within a working zone on an object moving along a path intersecting the working zone and according to at least one characteristic of said object, said method being for use with a sensor unit configured to generate data indicative of said object characteristic at a detecting position upstream said working zone, said method comprising the steps of:

i) generating task instruction data according to said characteristic indicative data;

ii) estimating successive positions of said object as it moves toward and through the working zone to generate object position tracking data;

iii) processing said task instruction data and said object position tracking data to generate object tracking task instruction data;  
and

iv) projecting light according to said object tracking task instruction data directly onto said object as it moves through the working zone, said light providing a visual instruction for the operator about the task to perform on the object.

## REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Bonnet	US 5,868,238	Feb. 9, 1999
Ramsager	US 2004/0195320 A1	Oct. 7, 2004
Chen et al.	US 2013/0249943 A1	Sept. 26, 2013

## REJECTIONS

Claims 1 and 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen et al. (“Chen”) and Ramsager. Final Act. 8–17.

Claims 11 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen, Ramsager, and Bonnet. Final Act. 17, 21–26, 28–32.

## OPINION

Appellant disputes the Examiner’s conclusion that the combined teachings of Chen and Ramsager would have rendered obvious “projecting light according to said object tracking task instruction data directly onto said object as it moves through the working zone, said light providing a visual instruction for the operator about the task to perform on the object,” as recited in claim 1. Appellant argues independent claims 1, 6, 11, and 15 together as a group. *See* Appeal Br. 13–28. As a result, we choose claim 1 as representative of the group. 37 C.F.R. § 41.37(c)(1)(iv) (2017).

The Examiner finds that Chen teaches “projecting light according to said object tracking task instruction data directly onto said object as it moves through the working zone,” and “a visual instruction for the operator about the task to perform on the object,” as recited in claim 1, based on Chen’s disclosures of: (1) illumination reflected from, diffracted from, dispersed from, or transmitted through sortable items on the sorting surface providing

input to a sensor system and a computing system to calculate composition information of the items; (2) an augmented reality interface (i.e., glasses) to present to a sorter the composition of an item, and the bin that may receive the item based on the item composition; (3) the augmented reality interface (i.e., glasses) provides visual sensations to the sorter including overlaying a colored outline on an item to indicate the bin to receive the item. *See* Final Act. 9–10 (citing Chen ¶¶ 13, 25, 29, 37, 47); Ans. 4–5 (citing Chen ¶¶ 13, 25, 29, 37, 47). The Examiner acknowledges that “Chen does not explicitly teach ‘projecting light according to said object tracking task instruction data directly onto said object as it moves through the working zone, said light providing a visual instruction for the operator about the task to perform on the object’ as stated in the claim (underlined emphasis on aspect not taught).” Final Act. 10; Ans. 5.

The Examiner finds that Ramsager’s teachings remedy the deficiencies of Chen’s teachings based on disclosures of: (1) one or more projectors that project displays including handling instructions onto items correlated to data included on the item’s label or indicia; and (2) a projector serving as a simple spotlight to illuminate selected parcels, while leaving non-selected parcels dark. *See* Final Act. 10–11 (citing Ramsager ¶¶ 53, 54, 85); Ans. 5–6 (citing Ramsager ¶¶ 53, 54, 85). The Examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Chen with the teachings of Ramsager in order to apply handling instructions accurately. *See* Final Act. 11 (citing Ramsager ¶ 11); Ans. 6 (citing Ramsager ¶ 11). The Examiner explains that the claimed invention is a combination of old elements in a similar field of endeavor, in which each element would have performed the same function as it did separately, and the combination would have yielded

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predictable results. *See* Final Act. 11 (citing MPEP § 2143); Ans. 6 (citing MPEP § 2143).

Appellant argues that one with ordinary skill in the art with knowledge of Chen would not have turned to parcel sorting technologies with the motivation to accurately apply handling instructions on recyclable items. *See* Appeal Br. 25.

As an initial matter, Appellant’s arguments are unpersuasive of Examiner error because they are not commensurate in scope with the claim language. Claim 1 does not require applying handling instructions to recyclable items. “[T]he name of the game is the claim.” *In re Hiniker Co.*, 150 F.3d 1362, 1369 (Fed. Cir. 1998). Claim 1 only requires “projecting light according to said object tracking task instruction directly *onto said object* as it moves through the working zone, said light providing a visual instruction for the operator about the task to perform on *the object*.” And to the extent Appellant argues that Ramsager’s teachings related to parcel sorting are not analogous art, we are not persuaded. A reference is analogous art if it is either in the field of the Appellant’s endeavor or is reasonably pertinent to the particular problem with which the inventor was concerned. *In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006); *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Notwithstanding Appellant’s bare arguments regarding the field of endeavor (i.e. parcel sorting vs. applying instructions on recyclable items), Appellant does not address whether Ramsager’s teachings are reasonably pertinent to assisting an operator to perform tasks on moving objects (*see* Spec. Abstract, Title, ¶¶ 1, 6.) (i.e., the problem with which the inventor was involved).

Appellant also argues that a skilled person would not have added the projector disclosed in Ramsager to the system disclosed in Chen with the

motivation to accurately apply instructions to such recyclable items because it would have been redundant. *See* Appeal Br. 25 (citing *Kinetic Concepts, Inc. v. Smith & Nephew, Inc.*, 688 F.3d 1342 (Fed. Cir. 2012) for holding that a person would have no reason to combine features of two devices that served the same function and independently operated effectively). Appellant contends that Chen’s augmented reality glasses are specifically designed to accurately apply instructions to recyclable items by projecting instructions onto its glasses rather than on the items itself, and is better adapted than the Ramsager’s projector to accurately apply handling instructions on recyclable items that come in a wide variety of compositions, shapes, and sizes. *See id.* at 25–26 (citing Chen Fig. 3).

Again, Appellant’s arguments are unpersuasive of Examiner error because they are not commensurate in scope with the claim language. Claim 1 does not require applying handling instructions to recyclable items, or recyclable items that come in a wide variety of compositions, shapes, and sizes. Claim 1 merely requires “projecting light according to said object tracking task instruction directly *onto said object* as it moves through the working zone, said light providing a visual instruction for the operator about the task to perform on *the object*.” We also are not persuaded by Appellant’s contention that there would have been no reason to combine the teachings of Chen and Ramsager on the basis of redundancy. Contrary to Appellant’s suggestion that the use of Chen’s augmented reality interface system alone is designed for applying instructions to objects, Chen teaches that the augmented reality interface (i.e., glasses) provides visual augmented information that may be used in addition to information available in the normal visual field. *See* Chen ¶ 37. Chen further explains that the augmented reality interface user’s field of view may incorporate a view of

both the items and the sorting surface, as well as additional visual information overlaid on the observed scene. *See id.* In other words, Chen suggests that visual information in the normal visual field can be used together with the visual information provided through the augmented reality interface. *See id.* In view of Chen's suggestion, we agree with the Examiner that it would have been obvious to one with ordinary skill in the art to modify the teachings of Chen to include Ramsager's teachings of using a projector to project light directly on the object (e.g., in the normal visual field providing a simple spotlight to illuminate selected items, while leaving non-selected parcels dark) to accurately provide handling instructions. *See* Final Act 11; Ans. 6. We further agree with the Examiner that the combined teachings of Chen and Ramsager would have been a combination of known elements, with each element would perform the same function it did separately, and would yield a predictable result (e.g., providing visual information with a spotlight to illuminate the selected object in the normal visual field and providing visual information by an augmented reality interface by overlaying a colored outline on the object). *See* Final Act 11; Ans. 6.

We find misplaced and unpersuasive Appellant's remaining arguments that a person of ordinary skill in the art would not have been motivated to substitute Ramsager's projector for Chen's augmented reality glasses. *See* Appeal Br. 26–27. Appellant's arguments are misplaced and unpersuasive because the Examiner does not propose substituting Ramsager's projector for Chen's augmented reality interface (i.e., glasses). *See* Final Act. 11; Ans. 6.

For all of the foregoing reasons, we are not persuaded of error in the Examiner's rejections of claims 1, 6, 11, and 15.

### CONCLUSION

We affirm the Examiner's rejections of claims 1, 6, 11, and 15 under 35 U.S.C. § 103(a).

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>References</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 6	103(a)	Chen, Ramsager	1, 6	
11, 15	103(a)	Chen, Ramsager, Bonnet	11, 15	
<b>Overall Outcome</b>			1, 6, 11, 15	

### TIME PERIOD FOR 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)(1)(iv).

AFFIRMED