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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/921,303	10/23/2015	Stephen Ball	05817-P0002C	4596
131672	7590	11/27/2019	EXAMINER	
Whitmyer IP Group LLC 600 Summer Street 3rd Floor Stamford, CT 06901			BLAUFELD, JUSTIN R	
			ART UNIT	PAPER NUMBER
			2142	
			MAIL DATE	DELIVERY MODE
			11/27/2019	PAPER

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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 BALL and COURTNEY BALL

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Appeal 2018-004176  
Application 14/921,303  
Technology Center 2100

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Before JEAN R. HOMERE, JASON V. MORGAN, and  
MICHAEL M. BARRY, *Administrative Patent Judges*.

MORGAN, *Administrative Patent Judge*.

DECISION ON APPEAL  
STATEMENT OF THE CASE

*Introduction*

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner’s decision to reject claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b). An oral hearing was held November 15, 2019. A transcript of the oral hearing is being prepared and will be entered into the record in due course. 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. Appellant identifies the inventors, Stephen Ball and Courtney Ball, as the real parties-in-interest. Appeal Br. 2.

*Summary of the disclosure*

Appellant's claimed subject matter relates to a projector adapted to move a projection vertically and horizontally on a surface based on user input from a pointer. Abstract.

*Representative claims (key limitations emphasized)*

1. A system for displaying content controlled by a user, comprising;  
a server generating a graphical user interface, the graphical user interface receiving user input for controlling the server;  
a projector receiving the graphical user interface from the server over a network and projecting a projection of the graphical user interface on a surface, *the projector adapted to move the entire projection vertically and horizontally on the surface based on the user input*;  
a controller automatically adjusting the projection to compensate for an angle of display of the projection so the projection is shown on the surface in a predetermined shape;  
*a pointer operated by the user and providing the user input, the user able to use the pointer to move the projection along the surface with a click when the pointer is at a position on the projection.*
2. The system of claim 1, wherein the pointer comprises a laser pointer having a button for indicating the click.
3. The system of claim 2, further comprising one or more areas on the projection, wherein *movement of the projection is controlled by positioning the pointer on the one or more areas.*
4. The system of claim 3, *wherein the movement includes rotating or resizing the projection.*

*The Examiner's rejections and cited references*

The Examiner rejects claims 1–20 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description and enablement requirements. Final Act. 3–10.

The Examiner rejects claims 1, 2, 5, 11, 12, and 14–17 under 35 U.S.C. § 103(a) as being unpatentable over Kjeldsen et al. (US 2007/0013716 A1; published Jan. 18, 2007) (“Kjeldsen”) and Hockett (US 2009/0091532 A1; published Apr. 9, 2009). Final Act. 10–15.

The Examiner rejects claims 3, 4, and 18 under 35 U.S.C. § 103(a) as being unpatentable over Kjeldsen, Hockett, and Ishikura et al. (US 5,585,821; issued Dec. 17, 1996) (“Ishikura”). Final Act. 16–17.

The Examiner rejects claims 6 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Kjeldsen, Hockett, and Bloomfield et al. (US 2002/0196279 A1; published Dec. 26, 2002) (“Bloomfield”). Final Act. 17–19.

The Examiner rejects claims 8, 9, 19, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Kjeldsen, Hockett, and Bathiche et al. (US 2010/0317332 A1; published Dec. 16, 2010) (“Bathiche”). Final Act. 19–25.

The Examiner rejects claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Kjeldsen, Hockett, and Ahrens et al. (US 2012/0005224 A1; published Jan. 5, 2012) (“Ahrens”). Final Act. 25–27.

The Examiner rejects claim 13 under 35 U.S.C. § 103(a) as being unpatentable over Kjeldsen, Hockett, and Crawford et al. (US 2011/0053688 A1; published Mar. 3, 2011) (“Crawford”). Final Act. 27–28; Notice of References Cited (July 13, 2016).

35 U.S.C. § 112, FIRST PARAGRAPH

In applying five of the seven *Wands* factors (*see In re Wands*, 858 F.2d 731, 737 (Fed. Cir. 1988)), the Examiner: (1) contrasts the Specification's disclosure with cited "art for a projector that can actually move its entire projection [and] provides significantly greater detail" that the Specification (Final Act. 7); (2) finds the Specification "does not even provide an example of an existing projector that one could purchase for use with the claimed system, let alone a description of how to construct a movable projector or a listing of its components" (*id.*); (3) finds the Specification "fails to provide any instructions or even the necessary components for making a projector that can change its projection surface" (*id.*); (4) finds the Specification "does not contain any working examples" (*id.* at 8); and (5) determines "claim 1 is not limited to any one embodiment of projector with a movable projection" and that "the 'adapted to' language makes the claim so broad that it reasonably encompasses any and all projectors that are capable of moving their projections vertically and horizontally on the surface, including those which are not what the applicant invented or that do not yet exist" (*id.*). The Examiner also finds the Specification "fails to provide one of ordinary skill in the art with even a clue of where to begin 'adapting' a projector to move its entire projection." Ans. 9. Thus, the Examiner concludes that the Specification fails to enable the invention of claim 1. Final Act. 8.

Appellant contends the Examiner erred by failing to explain "how there would allegedly be any undue burden, much less provided any technical reasons." Appeal Br. 8. In particular, Appellant contends "[e]nablement issues relating to computer implemented inventions are

treated in a similar manner as determining written description” (*id.*), and the Examiner “has not explained how a programmer of ordinary skill in the art could not create this invention without undue experimentation” (*id.* at 9). Appellant argues the Examiner fails “to quantify any experimentation needed to arrive at Appellant’s invention.” *Id.* at 10. Appellant also asserts the Specification “describes and the Figures disclose how the invention can be built and used by one skilled in the art.” *Id.* (citing Spec. Fig. 1, ¶¶ 8–11, 26–34).

Appellant’s arguments are unpersuasive because, as the Examiner correctly notes, Appellant’s “allegations . . . ignore the *three pages* of factual findings relevant to undue experimentation under the *Wands* factors . . . and are therefore non-responsive to the rejection.” Ans. 8. That is, Appellant fails to rebut the Examiner’s findings and analysis showing that the invention of claim 1 is not enabled. Rather, Appellant contends, without persuasive rebuttal evidence or arguments, that the Examiner’s findings are insufficient in light of the level of skill an artisan of ordinary skill would have had. *See* Appeal Br. 8–10.

Appellant also contends the Examiner erred by failing to consider the declaration provided by one of the named inventors. Appeal Br. 11. The Examiner, however, did consider the declaration. *See* Advisory Act. 3–4 (May 23, 2017); Ans. 10. Moreover, the Examiner correctly notes the declaration, lacking factual support, is unpersuasive. *See* Ans. 10; Appeal Br. 23–24 (Evidence App.—Inventor Declaration). The declaration merely asserts, for example, that “[b]ased on [the inventor’s] experience, one skilled in the art can make and use the claimed invention without undue experimentation.” Appeal Br. 23. That is, the declaration sets forth the

*opinion* of one of the inventors that the claimed invention is enabled. But the declaration fails to identify persuasive *facts* that support that opinion. Therefore, the declaration fails to rebut the Examiner’s findings and conclusions with respect to whether claim 1 is enabled.

Accordingly, we affirm the Examiner’s 35 U.S.C. § 112, first paragraph, rejection of claim 1, and claims 2–20, which Appellant does not argue separately.

35 U.S.C. § 103(A) – CLAIMS 1, 2, AND 6–20

In rejecting claim 1 as obvious, the Examiner finds that Kjeldsen’s steerable projector for providing an interface that follows a user combined with Hockett’s user-activated hand-held device teaches or suggests a “projector adapted to move the entire projection vertically and horizontally on the surface based on the user input” and “a pointer operated by the user and providing the user input, the user able to use the pointer to move the projection along the surface with a click when the pointer is at a position on the projection.” *See* Final Act. 12–13 (citing, e.g., Kjeldsen ¶ 37; Hockett ¶¶ 30, 31, 50); *see also* Ans. 11. The Examiner concludes it would have been obvious to an artisan of ordinary skill to use Hockett’s user-activated hand-held device to move Kjeldsen’s projection manually (i.e., rather than merely following the user automatically) “because ‘there is a need to remotely control the computer output displayed on a screen for sophisticated presentations or demonstrations.’” Final Act. 13 (citing Hockett ¶ 2).

Appellant contends the Examiner erred because “Kjeldsen discloses moving a projection ‘based on a user position,’” rather than by a pointer. Appeal Br. 12. Appellant further argues “Hockett does not disclose a moveable projection.” *Id.* These arguments unpersuasively attack Kjeldsen

and Hockett individually even though the Examiner's rejection is based on their combined teachings and suggestions. Ans. 11.

Appellant also attacks Kjeldsen and Hockett in combination. Specifically, Appellant argues Kjeldsen's direct interactions (e.g., use of finger, hand, and arm movements) teach away from using a pointer in the manner projected. Appeal Br. 13 (citing Kjeldsen ¶¶ 3, 38); *see also* Reply Br. 4 (further citing Kjeldsen ¶ 37). Appellant also argues that even if Kjeldsen and Hockett were combined, the projection would still move "based on user position." Appeal Br. 13; *see also* Reply Br. 5.

Appellant's arguments are unpersuasive because Kjeldsen's tracking of a user to determine where to steer a projector fails to criticize, discredit, or otherwise discourage substituting use of a user-activated device for user-tracking. *See* Ans. 11. Kjeldsen specifically teaches that interactions with an interface can either be through use of "any device, such as a laser pointer, or through any body part." Kjeldsen ¶ 64. Moving the projection is a type of interaction with the interface even though it affects the entire interface rather than merely the contents of the interface. Kjeldsen even teaches allowing the currently tracked user to identify a different user to track—an interaction that would result in the projection being moved (i.e., to the newly tracked user's location) based on user input. *Id.* ¶ 46. Hockett reinforces the teachings and suggestions directed to use of a device, rather than use of body movement, to interact with (e.g., to move) a projection, and shows that it would have been obvious to an artisan of ordinary skill to enable use of a pointer to move a projection along a surface with a click. Therefore, we find no error in the Examiner's conclusion that it would have been obvious to an

artisan of ordinary skill to substitute Kjeldsen's user tracking with Hockett's hand-held device in the manner claimed.

Accordingly, we sustain the Examiner's 35 U.S.C. § 103(a) rejection of claim 1 and the Examiner's 35 U.S.C. § 103(a) rejections of claims 6–19, which Appellant does not argue separately.

Appellant makes similar arguments with respect to claim 2. Appeal Br. 14. These arguments are unpersuasive for the reasons discussed above; therefore, we also sustain the Examiner's 35 U.S.C. § 103(a) rejection of claim 2.

Appellant also sets forth arguments in the Reply Brief with respect to claim 20 that were not raised earlier in the appeal. *See* Reply Br. 7. These untimely arguments are waived. 37 C.F.R. § 41.41(b)(2) (2016). Therefore, we also sustain the Examiner's 35 U.S.C. § 103(a) rejection of claim 20.

#### 35 U.S.C. § 103(A) – CLAIMS 3 AND 5

In rejecting claim 3 as obvious, the Examiner relies on Ishikura's icon display areas (used to switch a cursor from one display to another) to teach or suggest modifying Kjeldsen and Hockett to include "one or more areas on the projection, wherein movement of the projection is controlled by positioning the pointer on the one or more areas." Final Act. 16 (citing Ishikura col. 3, ll. 21–25).

Appellant contends the Examiner erred because "Ishikura is silent regarding movement of any projection." Appeal Br. 14. The Examiner correctly notes that the Examiner relied on Kjeldsen, not Ishikura, to teach or suggest the claimed movement of a projection. *See* Ans. 12–13. Appellant's additional contentions are unpersuasive because they are either

conclusory or are similar to arguments Appellant made with respect to claim 1. *See* Reply Br. 5–7.

Accordingly, we sustain the Examiner’s 35 U.S.C. § 103(a) rejection of claim 3, and claim 5, which Appellant does not argue separately.

35 U.S.C. § 103(A) – CLAIM 4

In rejecting claim 4 as obvious, the Examiner finds that Kjeldsen’s selection of a display image’s size and orientation teaches or suggests “wherein the movement includes rotating or resizing the projection.” *See* Final Act. 17 (citing Kjeldsen ¶ 37); *see also* Ans. 13.

Appellant argues the Examiner erred because the “user’s location only determines the projection’s initial size and orientation in Kjeldsen’s system but the interface adapter module changes the actual size and orientation.” Appeal Br. 15 (citing Kjeldsen ¶ 37). Appellant contrasts this with the “claimed invention where ‘rotation or resizing the projection’ occurs based on user’s input.” *Id.* (citing Spec. ¶ 26). Appellant’s arguments do not persuasively distinguish movement that includes rotating or resizing the projection (as recited) from Kjeldsen’s changing of size and orientation. Appellant’s arguments at best show that Kjeldsen teaches that the rotation or resizing takes place subsequent to an initial movement of the projection. *See id.* (distinguishing between, e.g., use of the user’s location and the interface adapter module). Claim 4, however, does not exclude multi-step movements from the claimed “movement [that] includes rotating or resizing the projection.”

Accordingly, we sustain the Examiner’s 35 U.S.C. § 103(a) rejection of claim 4.

CONCLUSION

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1–20	112, first paragraph	Written Description, Enablement	1–20	
1, 2, 5, 11, 12, 14–17	103(a)	Kjeldsen, Hockett	1, 2, 5, 11, 12, 14–17	
3, 4, 18	103(a)	Kjeldsen, Hockett, Isikura	3, 4, 18	
6, 7	103(a)	Kjeldsen, Hockett, Bloomfield	6, 7	
8, 9, 19, 20	103(a)	Kjeldsen, Hockett, Bathiche	8, 9, 19, 20	
10	103(a)	Kjeldsen, Hockett, Ahrens	10	
13	103(a)	Kjeldsen, Hockett, Crawford	13	
<b>Overall Outcome</b>			1–20	

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED