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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* BARTLEY J. ECKHARDT

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Appeal 2019-005129  
Application 15/874,423  
Technology Center 3600

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Before CHARLES N. GREENHUT, ANNETTE R. REIMERS, and  
JEREMY M. PLENZLER, *Administrative Patent Judges*.

GREENHUT, *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 to reject claims 7–13 and 17–19. *See* Final Act. 1. 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. Appellant identifies the real party in interest as Bartley J. Eckhardt. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to a reinforcing plate for joist sistering. Claim 7, reproduced below, is illustrative of the claimed subject matter:

7. A joist or stud used to support a structure, the joist or stud comprising:

a wood member having a first surface and an oppositely facing second surface, end surfaces extend between the first surface and the second surface, edge surfaces extend between the first surface, the second surface, and the end surfaces;

a rigid reinforcing plate mounted to the first surface of the wood member, the reinforcing plate comprising:

longitudinal edges positioned proximate to or adjacent to the edge surfaces of the wood member;

preformed first openings spaced from the longitudinal edges, the first openings allow for building materials to extend therethrough;

preformed second openings provided proximate to edges of the reinforcing plate, the second openings configured to allow for attachment members to be inserted therethrough to attach the reinforcing plate to the wood member;

the first openings are larger than the second opening;

the first openings are spaced along a longitudinal axis of the reinforcing plate to allow sufficient material to be provided across the length and width of the reinforcing plate wherein the integrity and performance of the reinforcing plate is maintained to allow the reinforcing plate to resist bending stresses applied to the joist or stud without failure of the reinforcing plate or the joist or stud;

wherein the longitudinal edges of the rigid reinforcing plate do not cooperate or interfere with the edge surfaces of the wood member;

wherein the reinforcing plate is mounted to the first surface of the wood member to resist the bending stresses applied to the joist or stud and to increase shearing resistance of the joist or stud.

## REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Rudd	US 5,875,605	Mar. 2, 1999
Le Poire	US 6,389,762 B2	May 21, 2002
Salazar	US 2014/0260031 A1	Sep. 18, 2014
Old House Web	<a href="http://www.oldhouseweb.com/forums/viewtopic.php?f=4&amp;t=18545">http://www.oldhouseweb.com/forums/viewtopic.php?f=4&amp;t=18545</a>	Nov. 24, 2008

## REJECTIONS

Claims 7, 9–11, and 13 are rejected under 35 U.S.C. § 103 as being unpatentable over Old House Web and Salazar. Final Act. 2.

Claims 8, 17, and 19 are rejected under 35 U.S.C. § 103 as being unpatentable over Old House Web, Salazar and Le Poire. Final Act. 5.

Claim 12 is rejected under 35 U.S.C. § 103 as being unpatentable over Old House Web, Salazar and Rudd. Final Act. 6.

Claim 18 is rejected under 35 U.S.C. § 103 as being unpatentable over Old House Web, Salazar, Le Poire and Rudd. Final Act. 6.

## OPINION

### Rejection 1

Claims 7, 9–11, and 13 are argued as a group. We select claim 7 as representative. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner rejected claim 7, determining Old House Web (“OHW”) satisfies all limitations of claim 7 except the limitation,

performed first openings spaced from the longitudinal edges, the first openings allow for building materials to extend therethrough; the first openings are larger than the second opening; the first openings are spaced along a longitudinal axis of the reinforcing plate to allow sufficient material to be

provided across the length and width of the reinforcing plate wherein the integrity and performance of the reinforcing plate is maintained to allow the reinforcing plate to resist bending stresses applied to the joist or stud without failure of the reinforcing plate or the joist or stud.

Final Act. 2–4.

The Examiner, citing openings 127, determined Salazar satisfies the above limitation and that “[i]t would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to include openings in the OHW steel plate (and therefore the wood beam also) as taught by Salazar to allow utilities to pass through the beam.” Final Act. 4 (citing Salazar para. 344 discussing the embodiment depicted in Figure 112).

Appellant argues that claim 7 includes the limitations of “the preformed second opening on the edges of the reinforcing plate to attach the plate to the wood member,” and “a first opening larger than the second opening which allows for building materials such as electrical wiring, plumbing, . . . to go through the plate,” which are not taught by OHW. Appeal Br. 5. Appellant is arguing against the references individually. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091 (Fed. Cir. 1986). The Examiner relies on the combined teachings of Salazar and OHW for the rejection. Ans. 4; Final Act. 4. Appellant has not apprised us as to why the Examiner’s findings with regard to Salazar are incorrect or based on an unreasonably broad claim interpretation.

Appellant argues that OHW does not teach “the reinforcing plate ‘resist[s] bending stress applied to the joist or stud’” because OHW is

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concerned with a “localized area” and not concerned with “the entire length of the stud.” Appeal Br. 5. We agree with the Examiner that “localized” repair is not mentioned in OHW and that “sistering the entire joist is not claimed.” Ans. 4. The Examiner also correctly determines that “any length of steel sistering plate ‘would resist bending stress applied to the joist or stud’” because the steel plate of OHW is shown to be constructed in the same manner as the Appellant’s claimed steel plate. Ans. 4, Final Act. 2–3. As the prior-art and claimed structures appear to be identical the burden to produce evidence or reasoning to demonstrate why they would not be expected to exhibit the same mechanical properties, such as resisting bending stress, shifts to Appellant. *See* MPEP § 2112. Appellant has not come forward with any technical reasoning or evidence to demonstrate why a recitation involving the ability to “resist bending stress applied to the joist or stud” would result in a structural difference between the subject matter claimed and the combination proposed by the Examiner.

Appellant also argues that neither OHW nor Salazar teach “preformed second openings provided proximate to edges of the reinforcing plate, the second openings configured to allow for attachment members to be inserted therethrough to attach the reinforcing plate to the wood member,” and “the first openings are spaced along a longitudinal axis of the reinforcing plate ...” Appeal Br. 6. The Examiner correctly determines OHW teaches “preformed second opening[s] provided proximate to edges of the reinforcing plate, the second opening[s] configured to allow for attachment members to be inserted therethrough to attach the reinforcing plate to the wood member.” Final Act. 3. The Examiner also correctly determines OHW does not expressly disclose, but Salazar teaches “the first openings are spaced along a longitudinal axis of the reinforcing plate ...” Final Act. 3–4.

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The Examiner correctly determines “[i]t would have been obvious to one having ordinary skill in the art before the effective filing date of the claimed invention to include openings in the OHW steel plate (and therefore the wood beam also) as taught by Salazar to allow utilities to pass through the beam.” Final Act. 4. We are not apprised of Examiner error.

*Motivations to combine or modify*

*Teaching Away*

Appellant argues that OHW teaches away from combining with Salazar because OHW teaches “[i]t is unlikely that there are utilities running through the joist to be sistered. Otherwise, sistering would involve rerouting of those utilities.” Appeal Br. 6. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, “the prior art’s mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed....” *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). OHW is a forum where different users provide thoughts or solutions on how to fix things around a house. Often a first user will post a story with questions on a forum, and then many users will join the conversation to offer solutions and provide further discussion of similar topics within the forum. The teaching away statement that Appellant cited is from a user “dfiler.” Ans. 5. The cited rejection used by the Examiner is from user “cs.” Ans. 5. The cited teaching of user “cs” does not have any teaching away statements. The teaching of “dfiler” does not mention anything about “holes,” as Appellant

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suggests. Appeal Br. 6. The statement of “rerouting of those utilities” from user “dfiler” does not criticize, discredit or otherwise discourage the solution of “adding holes.” OHW as a whole, while including comments of different users, is merely disclosing different alternatives to housing repairs. The skilled artisan would be able to determine the need or lack thereof, for routing utilities and choose an appropriate solution. The fact that some degree of judgement and mechanical skill may be required to implement the Examiner’s proposed combination does not, without more, demonstrate the nonobviousness of that combination. *Graham v. John Deere Co. of Kansas City*, 383 US 1, 10–12 (*discussing Hotchkiss v. Greenwood*, 11 How. 248 (1851)). Hence, the Examiner is correct that OHW as a whole does not teach away. Ans. 5.

#### *Changing the Principle of Operation of a Reference*

Appellant argues that “the Examiner’s proposed combination of references would require a substantial reconstruction and redesign of the elements shown in the Old House Web as well as a change in the basic principles under which the Old House Web was designed to operate.” Appeal Br. 6–7. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims prima facie obvious. *In re Ratti*, 270 F.2d 810, 813 (CCPA 1959). However, Appellant has not identified any principle operations of the OHW, and how the proposed modification changes the principle operation of the OHW. Appellant also has not explained why the proposed additional openings would constitute a substantial reconstruction and redesign of the steel plate of OHW. We agree with the Examiner that “Appellant’s steel

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member appears to actually have a greater number of such openings, which would make the claimed invention less structurally sound compared to the Old House Web structure.” Ans. 6. If the principle operation of the steel plate were for enforcing structural integrity, adding additional holes to the steel plate might provide a different level of structural integrity, but would not change the fact such plate is still for enforcing structural integrity—the principle operation of the steel plate.

### *Nonanalogous Art*

Appellant argues that “there is absolutely no way that one of ordinary skill in the art working with wood structures would ever turn and look to a reference like Salazar for inspiration” and “[t]here would be no reason to look to a structure which uses expandable polymeric materials with steel plates such as Salazar when dealing with supporting wood members such as Old House Web.” Appeal Br. 7. We regard Appellant to be arguing that Salazar is nonanalogous art. A reference is analogous art to the claimed invention if: (1) the reference is from the same field of endeavor as the claimed invention (even if it addresses a different problem); or (2) the reference is reasonably pertinent to the problem faced by the inventor (even if it is not in the same field of endeavor as the claimed invention).

Similarities and differences in structure and function of the inventions should be considered when determining the field of endeavor. *See Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). Appellant’s claimed subject matter is in the field of “enhanc[ing] the structural integrity of the joists.” Spec. para. 1. Salazar also is for enhancing the structural integrity of a joist. Salazar para. 212, 341. Hence, Salazar is similar in function as the claimed invention. Spec. para. 27. The Examiner correctly finds that Salazar’s steel

plate is of the similar structure as Appellant's plate. Final Act. 4 (citing Salazar, element 127, 113, and para. 344). The structure and function of Salazar's plate therefore demonstrates that Salazar is within the same field of endeavor as the claimed invention. Additionally, Appellant identifies a problem that "it may be difficult to properly drill through the reinforcing plate 14 to accommodate the electrical wiring, plumbing, conduit or other materials or devices." Spec. para. 28. The holes in Salazar's plate are intended to "allow utilities to pass through the beam." Final Act. 4 (citing Salazar para. 344). Thus, Salazar, "because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering [this] problem." *See In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). Hence, Salazar is also analogous art because it is relevant to the particular problem with which the inventor was concerned.

#### *Improper Hindsight*

Appellant argues that "the Examiner improperly relied upon hindsight to piece together Old House Web and Salazar without any motivation in the references themselves to do so." Appeal Br. 7. It must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Appellant's disclosure, such a reconstruction is proper. *See In re McLaughlin*, 443 F.2d 1392 (CCPA 1971). Appellant has not identified any particular knowledge that the Examiner used, which is gleaned only from Appellant's disclosure. When combining Salazar with OHW, the Examiner has provided articulated reasoning supported by rationale underpinnings for

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the proposed combination: “allow[ing] utilities to pass through the beam.” Final Act. 3–4 (citing Salazar para. 344); Ans. 7. Hence, the argument of improper hindsight is unsupported. Additionally, the Court, in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), rejected any rigid requirement of a teaching or suggestion or motivation to combine known elements to be found in the references in order to show obviousness.

### *Improper Use of Official Notice*

Appellant argues that the Official Notice of “it is exceedingly old in the art to use multiple opening/fasteners for holding strength” is improper. Appeal Br. 7–8 (citing Final Act. 3). Mere reliance on common knowledge does not, as Appellant seems to argue, render a rejection de facto flawed. Appeal Br. 7–8. To adequately traverse such a finding, Appellant must “specifically point out the supposed errors in the Examiner’s action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.” MPEP § 2144.03 (citing 37 C.F.R. § 1.111(b)). Appellant has not done this and indeed makes no allegation that it would not have been common knowledge in the art to use multiple fasteners to improve holding strength. Appeal Br. 7–8. In any case, the Examiner also relies on the same figure of OHW, which shows the use of multiple fastener-accommodating openings, for evidentiary support in response to Appellant’s argument. Ans. 8.

### Rejection 2

Appellant argues that  
the Examiner fails to show how the references (or for that reason the combination) teach the specific steps set forth in

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claim 17 of mounting a first rigid reinforcing plate to a wood surface, mounting a second rigid reinforcing plate to a second surface of the wood, aligning the preformed first mounting openings with the preformed second mounting opening, aligning the performed first conduct opening with the preformed second conduit opening and inserting a conduit through such openings.

Appeal Br. 9.

Under the principles of inherency, if a prior art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be satisfied by the prior art device. When the prior art device is the same field as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. *In re King*, 801 F.2d 1324 (Fed. Cir. 1986). The Examiner rejects the device claims 8 and 17 in “a sufficiently articulate and informative manner as to meet the notice requirement of 35 U.S.C. § 132.” *See, e.g., In re Jung*, 637 F.3d 1356, 1363 (Fed. Cir. 2011). Final Act. 5. It appears that in its normal and usual operation, the prior-art device cited in the rejection of claim 8 would perform the method of claim 17. Hence, the method claim 17 is considered to be satisfied by the prior art combination cited by the Examiner in the rejection of claim 8.

Appellant also argues that the Examiner fails to address “each step of these specific limitations of the method claims 17 and 19,” and “show the exact sequence of events or steps set forth in the method claims 17 and 19.”

Appeal Br. 9.

Though understanding the claim language may be aided by explanations contained in the written description, it is important not to import into a claim limitations that are not part of the claim. For example, a particular embodiment appearing in the

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written description may not be read into a claim when the claim language is broader than the embodiment.

*Superguide Corp. v. DirecTV Enterprises, Inc.*, 358 F.3d 870, 875 (Fed. Cir. 2004). The court, in *Altriris*, held that it was improper to read a specific order of steps into method claims where, as a matter of logic or grammar, the language of the method claims did not impose a specific order on the performance of the method steps, and the specification did not directly or implicitly require a particular order. *Altriris Inc. v. Symantec Corp.*, 318 F.3d 1363, 1371 (Fed. Cir. 2003) (citing at MPEP 2111.01 (II)). Hence, the Examiner correctly determines that “no sequence or order of the method steps” is required. Ans. 9.

#### *Nonanalogous Art*

Appellant argues that the Examiner “pull[s] [the] Le Poire reference out of the air to conclude without any rhyme or reason” that it would have obvious to combine the teaching of Le Poire with OHW when rejecting claims 8, 17, and 19. Appeal Br. 9. We regard Appellant to be arguing that Le Poire is nonanalogous art. As discussed above, a reference is analogous art to the claimed invention if: (1) the reference is from the same field of endeavor as the claimed invention (even if it addresses a different problem); or (2) the reference is reasonably pertinent to the problem faced by the inventor (even if it is not in the same field of endeavor as the claimed invention). Similarities and differences in structure and function of the inventions should be considered when determining the field of endeavor. *See Bigio*, 381 F.3d at 1325. Appellant’s claimed subject matter is in the field of “enhanc[ing] the structural integrity of the joists.” Spec. para. 1. Le Poire is for increasing the loads on the wood frame. Le Poire, col. 3 lines

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45–55 and col. 5 line 66–col. 6 line 1. Hence, Le Poire is similar in function as the claimed invention. Spec. para. 27. The Examiner correctly finds that the Le Poire’s steel plates are of the similar structure as Appellant’s plates. Final Act. 4 (citing Le Poire, Figure 7, element 24). The structure and function of Le Poire’s plates therefore demonstrate that Le Poire is within the same field of endeavor as the claimed invention. Additionally, Appellant identifies a problem that “due to the orthotropic properties of wood, some species cannot be used efficiently in many applications and/or under particular conditions,” and that “visual grading of structural lumber using as criteria exterior wood appearance restricts the use of an important quantity of slightly affected structural lumber to applications in which the stresses involved are considerably lower.” Spec. para. 4. The side plates on both sides of frame 22 in Le Poire are intended to provide “additional shear strength” or “carry extreme loads.” Final Act. 5; Le Poire col. 5 line 66–col. 6 line 1. Hence, Le Poire is also analogous art because it is relevant to the particular problem with which the inventor was concerned.

### *Improper Hindsight*

Appellant argues that the Examiner uses “improper hindsight reconstruction to supply deficiencies” when combining Le Poire to reject claims 8, 17, and 19. Appeal Br. 9–10. Again, Appellant has not identified any particular knowledge that the Examiner used, which is gleaned only from Appellant’s disclosure. When combining Le Poire with OHW and Salazar, the Examiner has provided articulated reasoning supported by rationale underpinnings for the proposed combination: “for additional shear strength.” Final Act. 5 (citing Le Poire Figure. 7). Hence, the argument of improper hindsight is unsupported.

*Improper Use of Official Notice*

Appellant argues that the Official Notice of “it is exceedingly old in the art to insert [a] conduit through a utility opening and that it is exceedingly old in the art to align holes in members to arrive at the final [rejection]” is improper. Appeal Br. 9 (citing Final Act 6). Again, mere reliance on common knowledge does not, as Appellant seems to argue, render a rejection de facto flawed. Appeal Br. 9. To adequately traverse such a finding, Appellant must “specifically point out the supposed errors in the Examiner’s action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art.” MPEP § 2144.03 (citing 37 C.F.R. § 1.111(b)). Appellant has not done this and indeed makes no allegation that it would not have been common knowledge in the art to insert a conduit through utility openings for code compliance or to align holes in members. Appeal Br. 9.

Rejection 3

*Improper Hindsight*

Appellant argues that the Examiner uses “improper hindsight reconstruction to supply deficiencies” when combining Rudd to reject claim 12. Appeal Br. 10. Appellant has not identified any particular knowledge that the Examiner used, which is gleaned only from Appellant’s disclosure. When combining Rudd with OHW and Salazar, the Examiner has provided articulated reasoning supported by rationale underpinnings for the proposed combination: “for additional holding strength.” Final Act. 6 (citing Rudd col. 2, lines 53–58). Hence, the argument of improper hindsight is unsupported.

Rejection 4

Appellant argues that “[t]he rejection is devoid of any reason” and that “the Examiner cannot simply rely on unsubstantiated conclusions to arrive at a finding of obviousness.” Appeal Br. 12. Again, if a prior-art device, in its normal and usual operation, would necessarily perform the method claimed, then the method claimed will be considered to be anticipated by the prior art device. When the prior-art device is the same as a device described in the specification for carrying out the claimed method, it can be assumed the device will inherently perform the claimed process. *In re King*, 801 F.2d 1324. The Examiner rejects the device claim 12 in “a sufficiently articulate and informative manner as to meet the notice requirement of 35 U.S.C. § 132.” *See, e.g., In re Jung*, 637 F.3d at 1363. Final Act. 5. It appears that in its normal and usual operation, the prior-art device cited in the rejection of claim 12 would perform the method of claim 18. Hence, the method claim 18 is considered to be met by the prior-art combination cited by the Examiner in the rejection of claim 12.

CONCLUSION

The Examiner’s rejections are affirmed.

DECISION SUMMARY

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
7, 9–11, 13	103	Old House Web, Salazar	7, 9–11, 13	
8, 17, 19	103	Old House Web, Salazar, Le Poire	8, 17, 19	
12	103	Old House Web, Salazar, Rudd	12	
18	103	Old House Web, Salazar, Le Poire, Rudd	18	
<b>Overall Outcome</b>			7–13, 17–19	

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