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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* SONG LI

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Appeal 2018-006641  
Application 14/449,003  
Technology Center 3600

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Before BRUCE T. WIEDER, KENNETH G. SCHOPFER, and  
TARA L. HUTCHINGS, *Administrative Patent Judges*.

SCHOPFER, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>1</sup> appeals from the Examiner's decision to reject claims 1–16. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM IN PART.

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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 Illinois Tool Works Inc. Appeal Br. 2.

## BACKGROUND

According to Appellant, “[t]he present invention relates to a door latch of an electrical appliance, in particular to a dishwasher door latch.” Spec. 1, ll. 7–9.

## CLAIMS

Claims 1 and 13 are the independent claims on appeal. Claim 1 is illustrative of the appealed claims and recites:

1. A door latch comprising:
  - a body;
  - a pawl provided with a rotating shaft, a first gap is provided between two ends of the rotating shaft, and a mounting slot is provided in one side of the pawl;
  - a first pin assembled in the pawl, the first pin is assembled in the mounting slot of the pawl; and
  - a spring having two ends which are connected to the body and the pawl, respectively, a first end of the spring is connected to the first pin through the first gap.

Appeal Br. 52.

## REJECTIONS

1. The Examiner rejects claim 7 under 35 U.S.C. § 112(b) as indefinite.
2. The Examiner rejects claims 1–5, 8, 9, and 11–14 under 35 U.S.C. § 102(a)(1) as anticipated by Pagano.<sup>2</sup>
3. The Examiner rejects claims 10, 15, and 16 under 35 U.S.C. § 103 as unpatentable over Pagano.

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<sup>2</sup> Pagano, EP 0917853 A1, pub. May 26, 1999.

4. The Examiner rejects claims 6 and 7 under 35 U.S.C. § 103 as unpatentable over Pagano in view of Shin.<sup>3</sup>

## DISCUSSION

### *Indefiniteness*

Claim 7 requires, in part, that “the body and pawl can make rotational movement relative to each other.” Appeal Br. 53. The Examiner determines that claim 7 is indefinite because such relative movement is only possible prior to assembly of the latch and prior to the body being fixed. *See* Final Act. 4. We are persuaded of error by Appellant’s arguments. *See* Appeal Br. 50. We agree with Appellant that the claim is directed to a door latch by itself and does not require any appliance on which it may be placed. Thus, as claimed, one of ordinary skill in the art would understand that the body of the latch is not fixed and may rotate relative to other parts, as claimed. Accordingly, we do not sustain this rejection.

### *Anticipation*

#### *Claims 1–5, 9, 11, and 12*

With respect to claim 1, the Examiner finds that Pagano discloses a door latch with a pawl, first pin, and spring assembled, with these parts connected as claimed. Final Act. 5. More specifically, in relevant part, the Examiner finds that Pagano discloses a pawl with a mounting slot formed by holes 34. *Id.* The Examiner makes clear that the mounting slot identified in Pagano is not a hole or the holes 34 alone, but includes the space between holes 34. *Id.* at 10 (“the ‘slot’ is formed by and therefore, between the holes 34 of Pagano.”). The Examiner further clarifies that “[t]he two pairs of

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<sup>3</sup> Shin, US 7,552,738 B2, iss. June 30, 2009.

holes 34 in [Pagano], in unison, is what forms the overall mounting slot, therefore they define the bounds of the mounting slot, and therefore the length of the slot extends between both holes 34.” Ans. 6. Further, the Examiner finds that the claimed “first gap” exists in Pagano between elements 33 and between two ends of the rotating shaft. Final Act. 5. The Examiner further clarifies that “[t]he first gap [in Pagano] is between the ends of the rotating shaft 31, which is most clearly shown in [F]igures 2 and 3 of Pagano ([F]igure 2 explicitly shows the spring end connecting to the first pin through the first gap).” Ans. 9.

We agree with and adopt the Examiner’s findings with respect to the anticipation rejection of claim 1. As discussed below, we are not persuaded of reversible error by Appellant’s arguments.

Appellant argues that the Examiner has identified only a set of holes in Pagano as the claimed mounting slot, which is not consistent with the broadest reasonable interpretation of the claimed mounting slot. *See* Appeal Br. 11–26. Appellant indicates that the term slot should be interpreted according to its dictionary definition, which is consistent with how the term is used in Appellant’s Specification. *Id.* at 26. Specifically, Appellant relies on the definition of slot as “a narrow opening or groove” and “a narrow passage or enclosure.” *Id.* (quoting Merriam-Webster).

We are not persuaded of error because the Examiner makes clear that Pagano teaches a slot that not only encompasses holes 34 but also encompasses the space between walls 33 in Pagano’s pawl. *See, e.g.,* Ans. 6. We agree with the Examiner that the walls 33 and holes 34 may be said to form a “narrow opening” through which the first pin 50 is assembled, as required by the claim. Thus, even if we agree with Appellant regarding

the appropriate definition of the term “slot” as including a narrow opening, we find that Pagano discloses a mounting slot as claimed.

Appellant also argues that Pagano does not disclose a first gap as claimed. *See* Appeal Br. 38–40. Here, Appellant asserts that, to the extent the Examiner relies on the space between holes 34 as the mounting slot, this space cannot also be considered a first gap as claimed. *Id.* at 38. Appellant asserts that the Examiner has not set forth an interpretation of the claim language and has not provided support for the finding that the first gap is located between appendices 33 in Pagano. *Id.* at 39.

We are not persuaded of reversible error. In the Answer, the Examiner not only makes clear how Pagano discloses the claimed mounting slot, but the Examiner also makes clear how Pagano discloses the first gap. Specifically, the Examiner indicates that the first gap is created between appendices/walls 33 and includes the area into which spring 10 extends to attach to pin 50. Ans. 9. We agree with the Examiner that Pagano shows a gap in the pawl through which the spring 10 extends toward the pin 50. *See* Pagano Fig. 2. Appellant does not rebut the Examiner’s findings in the Answer. Further, without additional explanation from Appellant, we are not persuaded that the area between elements 33 cannot form both a gap and a portion of the mounting slot.

Based on the foregoing, we sustain the rejection of claim 1 as anticipated. Because Appellant does not provide separate arguments regarding the rejection of dependent claims 2–5, 9, 11, and 12, we also sustain the rejection of those claims for the same reason.

*Claim 8*

Claim 8 recites “the first pin is as long as or is slightly shorter than the mounting slot.” Appeal Br. 53. The Examiner finds that Pagano discloses a first pin with these relative dimensions. Final Act. 6 (citing Pagano Fig. 1). The Examiner further explains that the length of the slot in Pagano extends between the ends of both holes 34 and “[t]he pin 50 extends as long as the length of the slot.” Ans. 7. We agree with Appellant that the Examiner has not established that the pin 50 meets the requirements of claim 8. We agree with Appellant that the Examiner has not identified any evidence in Pagano showing the scale of the drawings or the relationship in length between the pin and the outer edges of the holes 34. *See* Appeal Br. 32. At best, Figure 1 may suggest that the pin 50 is the same length as the distance between the outer edges of the holes 34. However, this suggestion is not sufficient to show that Pagano expressly or inherently discloses that the pin is as long as or slightly shorter than the mounting slot, as required by the claim. Accordingly, we do not sustain the rejection of claim 8.

*Claims 13 and 14*

Claim 13 differs from claim 1 in that it recites a pawl including “a mounting hole is provided in one side of the pawl.”<sup>4</sup> Appeal Br. 54. With respect to this claim, the Examiner relies on the same findings presented above with respect to claim 1. *See* Final Act. 13. The Examiner also notes that the terms “slot” and “hole” may be used interchangeably, as evidence by

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<sup>4</sup> To the extent prosecution of this application continues, the Examiner may wish to consider whether “the mounting slot” lacks proper antecedent basis in claim 13.

claim 14, which recites “the mounting hole is a mounting slot. *Id.*; *see also* Ans. 6–7.

Appellant argues that the recitation in claim 14 requires an interpretation of “mounting hole” that is different and broader than the term “mounting slot.” Appeal Br. 28–29. Thus, Appellant asserts that the Examiner’s interpretation of the terms slot and hole as interchangeable is erroneous. We agree with Appellant that the lack of a rejection under 35 U.S.C. § 112(d) suggests that the Examiner has determined that claim 14 includes a further limitation to claim 13, as required by the statute. However, we are not persuaded of reversible error in the rejection based solely on the fact that a “mounting hole” must have a different scope than a “mounting slot.” As explained above, the Examiner finds, and we agree, that Pagano includes holes and a space therebetween that may be considered a mounting slot. Without further explanation from Appellant, we agree with the Examiner that this structure in Pagano may be considered both a mounting hole and a mounting slot, as required by claims 13 and 14.

Accordingly, we sustain the rejection of claim 13. Appellant relies on the same arguments regarding the rejection of claim 14, and for the same reasons discussed, we also sustain the rejection of claim 14. *See* Appeal Br. 30.

*Obviousness*

*Claim 10*

Claim 10 depends from claim 1 and recites “the pawl is made of plastic material.” The Examiner finds that the material with which the pawl is made would not have a significant effect on the structure or operation of the pawl, and thus, the Examiner determines that it would have been obvious

to make the pawl out of plastic “in order to reduce cost of 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.” *In re Leshin*, 125 USPQ 416.

Appellant argues that the Examiner’s reliance on *Leshin* is misplaced because in *Leshin* “the material at issue was a material already used in devices as claimed in the manner recited. This is not the fact pattern here. Nowhere is there a pawl made of plastic.” Appeal Br. 44–45. We agree that the Examiner has not set forth a sufficient showing regarding design choice, here.

A so-called “design choice” rationale, such as the Examiner relies upon, has been deemed appropriate where one prior art element or property is proposed to be substituted for another that achieves the same purpose. *See ACCO Brands Corp. v. Fellowes, Inc.*, 813 F.3d 1361, 1367 (Fed. Cir. 2016) (“The prior art consistently locates the two sensors at issue in the shredder’s feed, and no party disputes that an ordinary artisan would have found this the obvious location for the combination of sensors. The ordinary artisan would then be left with two design choices.”); *Ex parte Maeda*, Appeal 2010-009814, 2012 WL 5294326, at \*3 (PTAB Oct. 23, 2012) (informative). *Cf. In re Gal*, 980 F.2d 717, 719 (Fed. Cir. 1992) (“The Board held that Gal had simply made an obvious design choice. However, the different structures of Gal and Matsumura achieve different purposes.”) Our reviewing court has cautioned that “[m]erely stating that a particular [limitation] is a design choice does not make it obvious.” *Polaris Indus., Inc. v. Arctic Cat, Inc.*, 882 F.3d 1056, 1069 n.4 (Fed. Cir. 2018) (quoting

*Cutsforth, Inc. v. MotivePower, Inc.*, 636 F. App'x 575, 578 (Fed. Cir. 2016) (nonprecedential)).

In the instant case, the Examiner does not adequately establish the predicate finding for a design-choice position — i.e., that the prior art or the knowledge of one skilled in the art provides an alternative element that achieves the same purpose as what is claimed. *See ACCO Brands*, 813 F.3d at 1367. The Examiner states that using a plastic pawl would reduce manufacturing costs and that plastic is a known material that could be selected based on its suitability for the intended use as a pawl. However, the Examiner provides no evidence or explanation showing that using plastic in any part of the latch was known to be suitable to support this conclusion. Accordingly, on the record before us, the Examiner has not sufficiently supported the reasoning provided. Thus, we do not sustain the rejection of claim 10.

*Claims 15 and 16*

Claim 15 depends from claim 13 and recites, “the mounting hole has a rectangular cross-section with a length greater than a width.” Appeal Br. 54. Claim 16 depends from claim 1 and recites, “the mounting slot has a rectangular cross-section with a length greater than a width.” *Id.* The Examiner finds that the mounting slot or hole in Pagano extends between the holes 34 and thus includes a length greater than a width. Final Act. 8. The Examiner acknowledges that Pagano does not disclose a rectangular cross-section as required by claims 15 and 16. *Id.* However, the Examiner concludes that using a rectangular cross-section would have been obvious as a matter of design choice and to prevent rotation of the mounting pin relative to the pawl. *Id.*

To the extent the Examiner relies on design choice here, we determine that the rejection does not adequately support this reasoning for the same reasons discussed above. In particular, the Examiner does not provide evidence or explanation showing that the use of a rectangular cross-section was a known alternative shape for a mounting slot. Further, although the Examiner provides that a result of using a rectangular mounting slot would prevent rotation of the pin, the Examiner does not explain why this would have led one of ordinary skill in the art to replace Pagano's mounting slot and pin with a circular cross-section with a mounting slot and pin having a rectangular cross-section. For example, the Examiner does not explain why preventing rotation of the pin would provide any benefit such that one of ordinary skill in the art would have had a reason, or motivation, to make such a change.

Based on the foregoing, we do not sustain the rejection of claims 15 and 16.

*Claims 6 and 7*

Appellant does not separately address the obviousness rejection of claims 6 and 7. These claims ultimately depend from claim 1, and thus, for the reasons discussed above, we are not persuaded of reversible error in the rejection of these claims. Accordingly, we sustain the obviousness rejection of claims 6 and 7.

CONCLUSION

We AFFIRM the anticipation rejection of claims 1–5, 9, and 11–14. We AFFIRM the obviousness rejection of claims 6 and 7. We REVERSE the remaining rejections.

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)(l)(iv).

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
7	112(b)	Indefiniteness		7
1-5, 8, 9, 11-14	102(a)(1)	Pagano	1-5, 9, 11-14	8
10, 15, 16	103	Pagano		10, 15, 16
6, 7	103	Pagano, Shin	6, 7	
<b>Overall Outcome</b>			1-7, 9, 11-14	8, 10, 15, 16

AFFIRMED IN PART