

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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FELLOWES, INC.,  
Petitioner,

v.

TREEFROG DEVELOPMENTS, INC.,  
Patent Owner.

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IPR2020-01543  
Patent 8,564,950 B2

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Before JOSIAH C. COCKS, GRACE KARAFFA OBERMANN,  
and PATRICK R. SCANLON, *Administrative Patent Judges*.

OBERMANN, *Administrative Patent Judge*.

DECISION  
Denying Institution of *Inter Partes* Review  
35 U.S.C. § 314

## I. INTRODUCTION

### *A. Background*

Fellowes, Inc. (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 17, 19, and 21 of U.S. Patent No. 8,564,950 B2 (Ex. 1001, “the ’950 patent”). Treefrog Developments, Inc. (“Patent Owner”) filed a Preliminary Response. Paper 10 (“Prelim. Resp.”). With Board preauthorization (Ex. 1019), Petitioner filed a Reply (Paper 11) and Patent Owner filed a Sur-reply (Paper 12) limited to addressing the term “corresponds” in claim 17. Based on the information presented, we accept that the named parties are the sole real parties in interest. Pet. 1; Paper 3 at 2.

### *B. Related Matters*

The parties identify a district court action as a related matter. Pet. 1 (citing Ex. 1003); Paper 3 at 2 (identifying *Otter Products, LLC v. Fellowes, Inc.*, No. 19-cv-06195 (N.D. Ill.) (Sept. 2019)); Prelim. Resp. 2. They also identify five Board proceedings as related. Pet. 2–3; Paper 3 at 2 (citing IPR2020-00852, IPR2020-00869, IPR2020-01435, IPR2020-01469, and IPR2020-01509). Patent Owner identifies two additional Board proceedings. Paper 3 at 2 (citing IPR2020-01575 and IPR2020-01623).

### *C. Challenged Claims*

Claims 17, 19, and 21 are the subject of Petitioner’s challenge. Pet. 12. We reproduce below claim 17, the only independent challenged claim, which is illustrative of the claimed subject matter.

17. An apparatus for covering at least part of a mobile computing device having a touch screen display, the mobile computing device further having at least one switch that is actuated by a

motion that is at least in part lateral to a surface of a housing that houses the mobile computing device, the apparatus comprising:

an encasement that enables operation of the touch screen display and covers at least part of the mobile computing device that includes the at least one switch, the encasement having an outer surface and an inner surface, the encasement is comprised of:

a bottom member comprising a front surface and a back surface, and surrounded by a perimeter portion defined by a proximal end portion, a distal end portion, and opposing side portions, the perimeter portion of the bottom member having a channel formed by an interior perimeter portion and an exterior perimeter portion, the channel including a compressible gasket positioned therein; and

a top member having an inner perimeter defined by a rigid frame that corresponds to an outer perimeter of the electronic device and the perimeter portion of the bottom member, the rigid frame extending to ***a ridge that is adapted to clasp within the channel of the bottom member and seal against the gasket***, the top member further including a membrane that overlays the rigid frame opposite the ridge, the membrane having a transparent area, the top member further including a switch mechanism; and

the switch mechanism including a switch actuator at the outer surface of the encasement, and a switch interface being provided proximate the inner surface of the encasement to contact the at least one switch of the mobile computing device and being coupled with the switch actuator such that a movement of the switch actuator controls a movement of the switch interface to actuate the at least one switch of the mobile computing device.

Ex. 1001, 82:59–83:30 (emphasis added). For convenience, we refer to the emphasized feature as the “ridge” limitation of claim 17. *Id.* at 83:14. The

other challenged claims inherit the ridge limitation through direct dependence on claim 17. *Id.* at 34–42 (for claims 19 and 21). Our analysis of the ridge limitation applies with equal force to each challenged claim.

*D. Asserted Grounds of Unpatentability*

| Ground | Claims Challenged | 35 U.S.C. § | References <sup>1</sup>                          |
|--------|-------------------|-------------|--------------------------------------------------|
| 1      | 17, 19, 21        | 103         | Kuhn <sup>2</sup> , Shimamura <sup>3</sup>       |
| 2      | 17, 19, 21        | 103         | Kuhn, Shimamura, Richardson <sup>4</sup>         |
| 3      | 17, 19, 21        | 103         | Kuhn, Fukumoto <sup>5</sup>                      |
| 4      | 17, 19, 21        | 103         | Kuhn, Fukumoto, Richardson                       |
| 5      | 17, 19, 21        | 103         | Kuhn, Shimamura, Richardson, Goudal <sup>6</sup> |
| 6      | 17, 19, 21        | 103         | Kuhn, Fukumoto, Richardson, Goudal               |

Pet. 11–12. The Petition is supported by the Declaration of Dr. Charles Garris. Ex. 1010. The Preliminary Response is supported by the Declaration of Dr. T. Kim Parnell. Ex. 2002.

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<sup>1</sup> Although the parties in some instances refer to the references by number, we employ the first named inventor consistent with standard convention.

<sup>2</sup> EPA 1 583 251 A1, published Oct. 5, 2005 (Ex. 1004).

<sup>3</sup> US 7,050,712 B2, issued May 23, 2006 (Ex. 1006).

<sup>4</sup> US 2008/0316687 A1, published Dec. 25, 2008 (Ex. 1005).

<sup>5</sup> JP 2002-82384 (unexamined), published March 22, 2002 (Ex. 1007).

<sup>6</sup> FR 2,705,857, published Dec. 2, 1994 (Ex. 1008).

## II. DISCUSSION

### *A. Person of Ordinary Skill in the Art*

The parties identify somewhat different definitions for the person of ordinary skill in the art. Pet. 24; Prelim. Resp. 5. But at this juncture, “Patent Owner does not dispute Petitioner’s definition.” Prelim. Resp. 5. We consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001). To the extent a more specific definition is required, for purposes of this Decision, we adopt Petitioner’s unopposed definition (Pet. 24) because, on this record, it is consistent with the Specification.

### *B. Claim Construction*

No claim term requires express construction for our purposes. To the extent that the scope of any claim term requires discussion, however, we provide it in the following analysis of the challenges.

### *C. Analysis of the Challenges*

This Decision turns on the scope of the ridge limitation specified in claim 17, namely, “a ridge that is adapted to clasp within the channel of the bottom member and seal against the gasket.” Ex. 1001, 83:14–16. We organize our analysis into three parts: (1) a discussion of the ridge limitation; (2) an assessment of Petitioner’s assertion that Kuhn discloses the specified ridge feature; and (3) disposal of the other arguments.

#### 1. The Ridge Limitation of Claim 17

The Specification informs the scope of the words “a ridge that is adapted to ***clasp within the channel*** of the top member ***and seal against the gasket***” as they appear in claim 17. Ex. 1001, 83:14–16 (emphasis added). The Specification of the ’950 patent distinguishes “internal” clasping

mechanisms from “external” or “hybrid” clasp mechanisms, in which all or some clasp components are located outside the housing. *Id.* at 3:54–4:38. The Specification also defines “internal clasp mechanisms” as those “contained within the bounds that form the interior or cavity of the housing when the top and bottom members are coupled together so as to form a housing.” *Id.* at 3:54–59. That express definition controls the outcome here.

Claim 17 is directed to an “internal” clasp mechanism, that is, “a ridge” contained “entirely within the bounds of the housing” when the top and bottom housing members are coupled together. *Id.* 17:60–64; 32:52–61 (explaining that “clasp mechanism 27” may be configured “as a ridge member”); *see id.*, Fig. 4B (for an illustration of clasp mechanism 27 configured as a ridge). Figure 3, reproduced below, shows the interaction between clasp mechanism 27 and compressible gasket 15 when clasp mechanism 27 is adapted to clasp within channel 10.

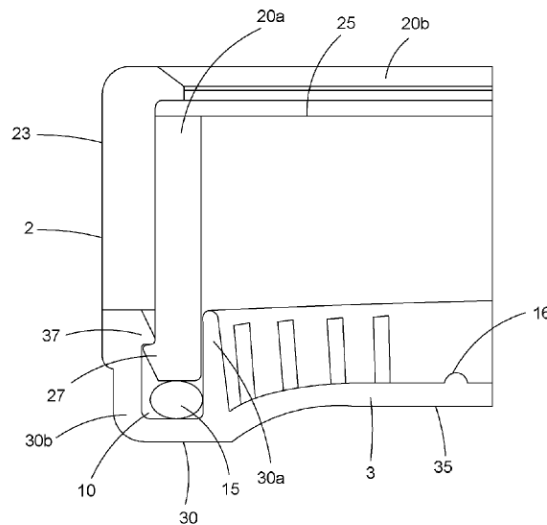


FIG. 3A

*Id.* at Fig. 3A. Figure 3 is a “perspective view[] of a latching mechanism of a housing.” *Id.* at 9:17–18. Figure 3 illustrates clasp mechanism 27 in

intimate interaction with gasket 15, exerting a force sufficient to compress gasket 15 to form a seal without assistance from any clasping components external to the channel.

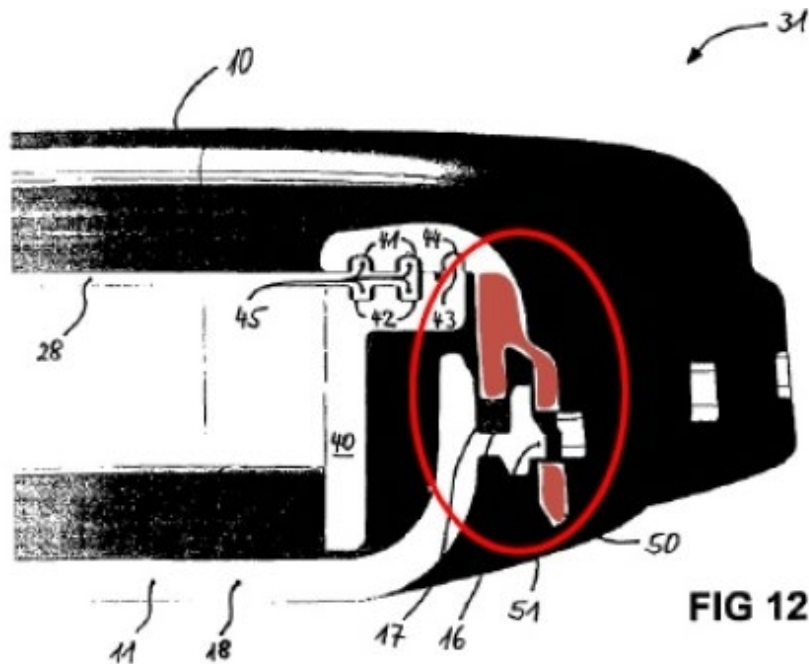
Figure 3 illustrates that clasping mechanism 27 may be adapted to “clasp within the channel” in a manner that generates a “seal against the gasket.” Ex. 1001, 83:14–16. Those words in claim 17 signal that the ridge limitation is directed to “[a] unique feature” disclosed in the Specification, namely, a clasping mechanism “entirely internal to the housing” adapted for “creating,” for example, “a liquid-proof and continuous seal,” whether or not additional clasping components are added to the “exterior” of the housing. *Id.* at 17:60–8:15.

As Patent Owner observes, the language of claim 17 “is exacting.” Prelim. Resp. 45. It requires a clasping mechanism having a specific structure (“a ridge”) in a specific location (“within the channel”) that is adapted to perform two distinct tasks (a clasping task and a sealing task). Ex. 1001, 83:14–16; *see id.* at 20:15–22 (clasping mechanism 27 “interacts with corresponding clasping mechanism 37 . . . ***so as to provide a seal thereby***”) (emphasis added), 22:5–10 (“clasping mechanisms 27 and 37 respectively form opposing snap closures that are configured for interacting with one another in such a manner that when they are coupled together,” for example, “snapped together, ***they seal the housing***”) (emphasis added). That informs our resolution of the asserted challenges, which we address next.

## 2. Kuhn’s Asserted Ridge Feature

In Petitioner’s view, Kuhn discloses a ridge feature that “cooperates with surfaces of the channel” in a “‘form-fitting’ or ‘form-locking’” connection. Pet. 31–32 (claim chart). Petitioner relies on two figures from

Kuhn, namely, an annotated version of Figure 12 and an excerpt from Figure 4. We reproduce below Petitioner's version of Kuhn's Figure 12.



Pet. 31. Figure 12 is an enlarged edge area of a sectional view of a housing. Ex. 1004 ¶ 49. Petitioner highlights by shading red (and by adding a red circle around) a portion of Kuhn's element 39 (not identified by numeral in this figure). In Petitioner's view, elements 39 and 40 together represent "a rigid frame" within the scope of claim 17. Pet. 29. Petitioner identifies an area of the red shaded portion of element 39 (namely, the area located within channel 16, which contains seal 17) as a ridge feature. *Id.* at 31–32.

Petitioner acknowledges that Kuhn relies on closure elements external to the channel (for example, latches, clasps, or hooks located outside the bounds of the housing) to secure the connection between the top and bottom members, but asserts that an "interference fit" connection is established within the channel: Specifically, Petitioner argues, an interference fit connection is formed between an area of Kuhn's element 39 (namely, that



area contained within channel 16) and the side walls of channel 16, which, thereby, provides “part of the clasping” generated by the external clasping components. *Id.* at 30, 41–42. That argument misses the mark because, as explained above, claim 17 specifies an internal clasping mechanism that is adapted to seal against a gasket within the channel even in the absence of a sealing force contributed by external clasping components.

Petitioner does not demonstrate adequately that the asserted interference fit in Kuhn’s apparatus creates a force sufficient to “seal against the gasket” (seal 17 in Figure 12). Ex. 1001, 83:14–16; Pet. 42; *see id.* at 32 (citing disclosures in Kuhn that do not support that proposition, namely, Ex. 1004 ¶¶ 55, 56, 63, 76, 78, 91)). Kuhn makes plain that external “locking clamps” supply the force necessary to compress seal 17. Ex. 1004 ¶¶ 70, 78, 91; *see* Pet. 29 (mapping the “compressible gasket” of claim 17 (Ex. 1001, 83:9–10) to Kuhn’s “seal 17”). We are directed to no evidence that Kuhn’s asserted ridge feature “is adapted to clasp” in an interference fit connection and, thereby, “seal against the gasket” (that is, exert a compressive force against seal 17) without any contribution of force generated by external clasping components. Ex. 1001, 83:14–16 (claim 17).

On that point, Petitioner describes Kuhn’s interference fit as enabling the “housing parts” to “engage in a connected state, at least in part form-fit.” Pet. 42. But that assertion is inadequate, because claim 17 requires that the ridge feature do more than merely “engage” the housing parts “in a connected state.” *Id.* The ridge must be adapted to “seal against” a “compressible gasket” whether or not additional clasping components are employed external to the housing. Ex. 1001, 83:9–10, 83:14–16. Petitioner’s own witness, Dr. Garriss, identifies external clasping mechanism 50 as the

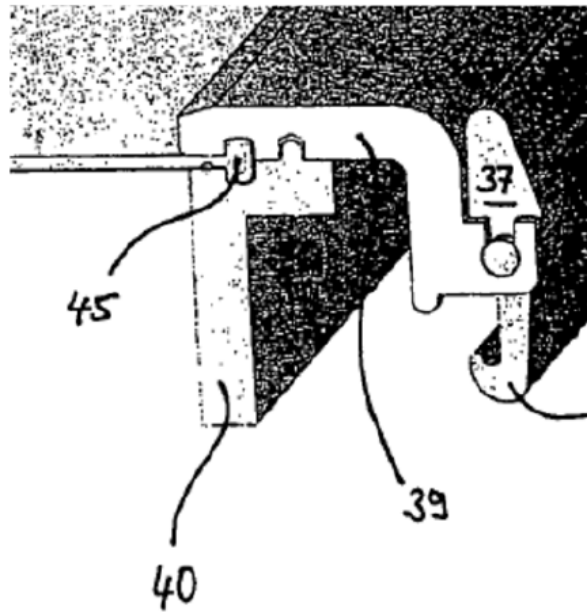
structure in Kuhn that “latches or clasps when mated with” external clasping element 51. Ex. 1010 ¶ 61.

Petitioner advances the extrinsic opinion of Dr. Garris that the asserted “ridge” area of Kuhn’s element 39 works “to cooperate as part of the securement” supplied by external closure elements 50 and 51. Pet. 30 (citing Ex. 1010 ¶ 61). That ridge area in Kuhn’s apparatus, Dr. Garris adds, “is part of the clasping provided by closure elements 50/51,” which are located outside the bounds of the housing. *Id.* Those opinions do not disturb the unequivocal intrinsic evidence (within the four corners of Kuhn) that elements 50 and 51 (and clamps 12 and hooks 13) are external clasping mechanisms that contribute (if not fully generate) the force necessary to compress the gasket (and, thereby, provide the seal) in Kuhn’s apparatus. *See* Ex. 1004 ¶¶ 52, 53, 76, 77, 84; *see* Prelim. Resp. 42–46 (for arguments on point tied persuasively to disclosures in Kuhn); Pet. 43 (citing Ex. 1010 ¶¶ 67–68 (Dr. Garris, identifying no objective evidence that any asserted ridge area in Kuhn is adapted to generate a force sufficient to seal against the gasket in the absence of external clasping components)).

Petitioner argues that the asserted interference fit causes Kuhn’s asserted ridge to interact with “a web of the top housing part” in a manner whereby the web “is ‘fixed between’ the channel side walls.” *Id.* at 32 (citing Ex. 1004 ¶¶ 55, 56, 63, 76, 78, 91); Ex. 1010 ¶ 65. Even if we accept that an interference fit in Kuhn’s apparatus generates that sort of *lateral* force (Pet. 32), Petitioner’s showing falls short for purposes of trial institution. Kuhn makes crystal clear that the *downward* force necessary to accomplish the sealing task is generated (or at least assisted) by external clasping components. By way of example, Kuhn teaches, “the securing of

the connection between housing parts 10, 11, *is accomplished by the interaction of the closing clasps 12* of the second housing part 11 *with the locking clamps 13* of the first housing part.” Ex. 1004 ¶ 63 (emphasis added). Those components are external to the housing in Kuhn’s apparatus. *Id.* at Fig. 3.

Petitioner also directs us to a partial reproduction of Kuhn’s Figure 4, which, among other modifications, cuts off the numeral that identifies an external clasp mechanism (hook 38). We reproduce Petitioner’s version of Figure 4 below.



Pet. 31. The above figure is Petitioner’s “excerpt from Fig. 4” of Kuhn, which illustrates a different embodiment of a housing apparatus that, in Petitioner’s view, “shows another example of a ridge at the end of wall 39 that clasps within the channel 16.” *Id.* Figure 4 illustrates “two locking elements 37, 38” or “closure elements 37, 38” (where element 38 is the feature that includes the unnumbered hook feature in this excerpt of Figure 4). Ex. 1004 ¶¶70, 71.

In this embodiment, “[t]he connection between the first housing part [ ] and the second housing part [ ] is secured by two locking clamps, which are mounted on the first housing part [ ] and [ ] interact with [the] hook.” *Id.* at ¶ 70 (element numerals omitted). This embodiment no better demonstrates a ridge adapted to seal a gasket (without external clasping components) than the embodiment disclosed in Figure 12.

Petitioner’s further view that the external clasping mechanisms disclosed in Kuhn “independently meet the claim language” subverts the plain words of the claim. Pet. 43. Petitioner, at best, identifies in Kuhn a type of external or hybrid clasping mechanism, which is discussed (but not claimed) in the ’950 patent. *Compare* Pet. 30–31, 41–44 (Kuhn, identifying structures external to the housing as supplying the clasping force), *with* Ex. 1001, 4:12–13 (written description, distinguishing “internal” from “external” and “hybrid” clasping mechanisms), 17:60–18:6 (“[a] unique feature” of internal clasping mechanisms “is that they are entirely internal to the housing” and “ensure,” for example, “a liquid-tight seal”).

Accordingly, we find Petitioner does not show sufficiently that Kuhn discloses the “ridge” feature specified in claim 17. Ex. 1001, 83:14–15.

### 3. Other Arguments

Petitioner submits that Richardson discloses a ridge that “could be used to provide the ‘form locking’ type of connection referenced in Kuhn between its ridge and channel to couple the housing members together.” Pet. 54. We agree with Patent Owner that this argument is not developed sufficiently in the Petition, or tethered adequately to objective evidence (for example, disclosures in Richardson). Prelim. Resp. 48–49. Petitioner relies

extensively on conclusory opinions supplied by Dr. Garris to fill gaps in the intrinsic evidence. Pet. 53– 55 (citing Ex. 1010 ¶¶ 90–92).

We also agree with Patent Owner that Petitioner relies on an asserted interchangeability of the top and bottom members of Richardson’s housing. In that regard, Richardson explains that its asserted channel feature is located in a top member (not a bottom member, as required by claim 17). *See* Ex. 1005, Fig. 12, ¶ 47 (Richardson, explaining that ridges 1348, 1350 are located “in the back shell 1324” to interact with a groove or channel (not shown) “in the front shell 1204”); Prelim. Resp. 49–50 (for persuasive arguments on point). As Patent Owner points out, “the Board explicitly rejected Petitioner’s attempt to place a ‘channel’ in the ‘top member’ when the claim required the ‘channel’ be in the bottom member” in a related decision. Prelim. Resp. 49; *see* IPR2020-00869, Paper 16 at 4–5. Under these circumstances, we find Petitioner fails to explain adequately why an ordinarily skilled artisan would have been led to modify Kuhn’s apparatus to include Richardson’s asserted ridge feature in the particular configuration required by claim 17.

Petitioner also briefly suggests that Goudel discloses a snap-on box lid that meets the ridge limitation. Pet. 63. Here again, however, as Patent Owner points out, the asserted channel is located in a top member (not a bottom member). Prelim. Resp. 58–59. In any event, presumably because “there is no clasping structure in the channel” of Goudel, Petitioner creatively annotates Goudel’s Figure 3A in a manner that artificially “extends the boundary of the channel to arbitrarily include the purported clasp.” *Id.* at 60 (citing Pet. 62). A “snap fastening” mechanism is located, if at all, outside the channel in Goudel’s apparatus. *Id.* at 60–61.

The above issues are dispositive of the challenges raised against claim 17. Because claims 19 and 21 inherit the ridge limitation by dependence from claim 17, Petitioner is not reasonably likely to prevail at trial in showing that any challenged claim is unpatentable based on any ground asserted in the Petition. We do not reach any other arguments, including those pertaining to claim preclusion or discretionary denial under 35 U.S.C. § 325(d). Prelim. Resp. 17–27, 63–65.

### III. CONCLUSION

For the above reasons, we *deny* the Petition and do not institute an *inter partes* review. 35 U.S.C. § 315(a)(1).

### IV. ORDER

It is

ORDERED that the Petition is *denied* and no *inter partes* review is instituted.

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