

Filed on Behalf of: Otter Products, LLC

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

OTTER PRODUCTS, LLC,

Petitioner,

v.

SAFETRAY PRODUCTS LTD,

Patent Owner.

Case No.: IPR2025-622
U.S. Patent No. 10,113,691

PETITION FOR INTER PARTES REVIEW
OF U.S. PATENT NO. 10,113,691

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PETITIONER’S EXHIBIT LIST

EX1001	The '691 Patent
EX1002	The prosecution history of the '691 Patent
EX1003	Declaration of Paul Hatch, dated February 20, 2025.
EX1004	U.S. Patent Publication No. 2012/0042476 to Karmatz (“Karmatz”)
EX1005	International Patent Publication No. WO2011/107786 to Grieve (“Grieve”)
EX1006	U.S. Patent Publication No. 2015/0115112 to Noh (“Noh”)
EX1007	U.S. Patent Publication No. 2012/0068043 to Daigle <i>et al.</i> (“Daigle”)
EX1008	U.S. Patent No. 8,428,664 to Wyers (“Wyers”)
EX1009	U.S. Patent Publication No. 2012/0048873 to Hyseni (“Hyseni”)
EX1010	U.S. Patent Publication No. 2011/0047583 to Howard <i>et al.</i> (“Howard”)
EX1011	U.S. Patent Publication No. 2013/0166401 to Algozer <i>et al.</i> (“Algozer”)
EX1012	U.S. Patent No. 8,922,985 to Richardson <i>et al.</i> (“Richardson”)
EX1013	U.S. Patent Publication No. 2004/0226973 to Kao (“Kao”)
EX1014	U.S. Patent Publication No. 2013/0048809 to Jacobson (“Jacobson”)
EX1015	U.S. Patent Publication No. 2012/0104185 to Carroll (“Carroll”)
EX1016	U.S. Patent Publication No. 2012/0217030 to Johnson (“Johnson”)
EX1017	U.S. Patent No. 9,241,551 to Lawson <i>et al.</i> (“Lawson”)
EX1018	U.S. Patent No. 10,207,460 to Reznar (“Reznar”)
EX1019	ANSI/HFES 100-2007 – Human Factors Engineering of Computer Workstations (2007)
EX1020	Merriam-Webster (10 th Edition)
EX1021	Scheduling Order In a Patent Case (Dkt. 19) in <i>SafeTray Prods. Ltd. v. Otter Prods., LLC</i> , No. 1:24-cv-01119-DDD-KAS (D. Colo.)
EX1022	Time to Milestones Report for Patent Cases from Docket Navigator for the District of Colorado (captured Jan. 13, 2025)
EX1023	PACER Docket Report for <i>SafeTray Prods. Ltd. v. Otter Prods., LLC</i> , No. 1:24-cv-01119-DDD-TPO (D. Colo.)

I. MANDATORY NOTICES UNDER 37 C.F.R. § 42.8

A. Real Party-in-Interest

Otter Products, LLC is the Petitioner and a real party-in-interest.

B. Related Matters

U.S. Patent No. 10,113,691 (the “’691 Patent”) has been asserted in *SafeTray Products, Ltd v. Otter Products, LLC*, No. 24-cv-1119 (D. Colo.), filed April 23, 2024. To the best of Petitioner’s knowledge, the ’691 Patent has not been involved in any other proceedings.

C. Lead and Back-up Counsel and Service Information

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II. GROUNDS FOR STANDING

Petitioner certifies that the '691 Patent is available for *inter partes* review and that Petitioner is not barred or estopped from requesting *inter partes* review challenging the patent claims on the grounds identified in this Petition.

III. REQUESTED RELIEF

Petitioner asks that the Board review the accompanying prior art and analysis, institute a trial for an *inter partes* review of Claims 1-20 of the '691 Patent and cancel those claims as unpatentable.

IV. REASONS FOR THE REQUESTED RELIEF

As explained below and in the declaration of Petitioner's expert Paul Hatch, Claims 1-20 of the '691 Patent are unpatentable because they were previously disclosed in prior publications and/or would have been obvious to a person of ordinary skill in the art ("POSITA"). Accordingly, the Board should institute trial and cancel Claims 1 through 20.

A. Stabilizing Devices for Portable Computer Devices Were Well-Known Long Before the '691 Patent

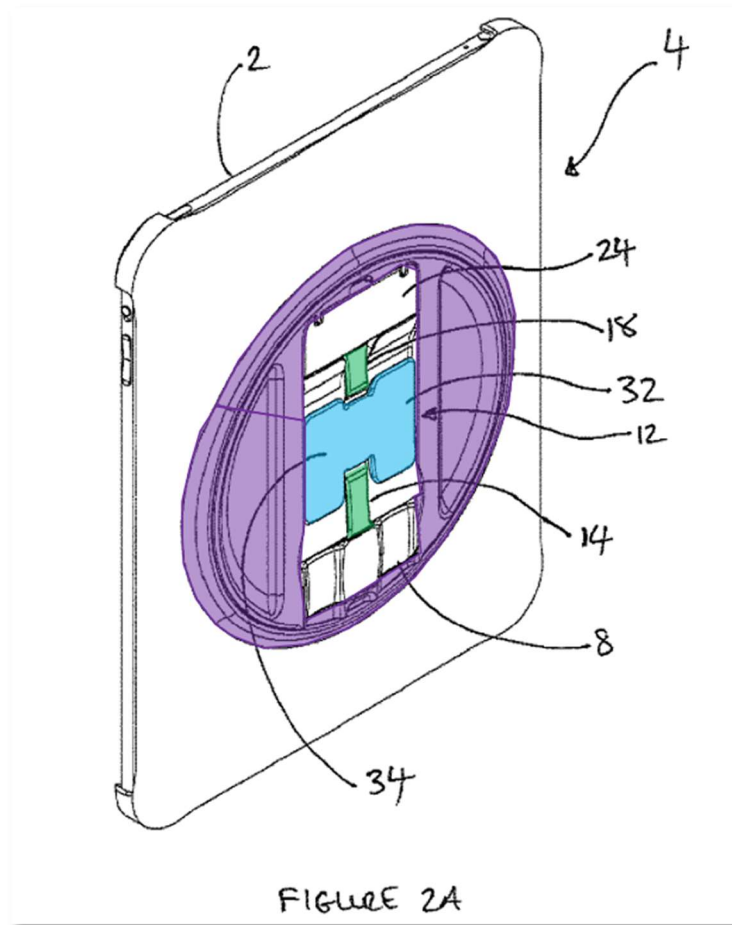
The alleged invention of the '691 Patent relates generally to “a stabilising device¹ for a portable computing device, to a display system comprising a stabilising device and a portable computing device, and to the use of a stabilising device for holding a portable computing device.” EX1001, 1:16-19. Stabilising devices for the claimed portable computing devices—including such features as handles, grips, and the like—have long been known in the art. EX1003, ¶¶40-44. This was true of grips for tablet computers. *Id.* ¶42; EX1001, 1:23-24 (“Portable computing devices, also known as tablet computers...”). In and before 2013, a POSITA would have understood market trends driving development of stabilising devices and features for same, which further included compatibility with the protective cases increasingly used with tablet computers. EX1003, ¶¶43, 44(a). The use of stabilising grips for tablet computers was well known, along with stability and ergonomic considerations for such accessories. Such considerations included rotatable grips based on design pressure caused by the market trends for tablet computers capable of use in both

¹ The '691 Patent employs the British English spelling of “stabilizing.” Petitioner adopts the same spelling.

landscape and portrait orientations, along with incorporation of rounded edges to improve user comfort. *Id.*, ¶¶44(b)-(d).

B. Summary of the '691 Patent

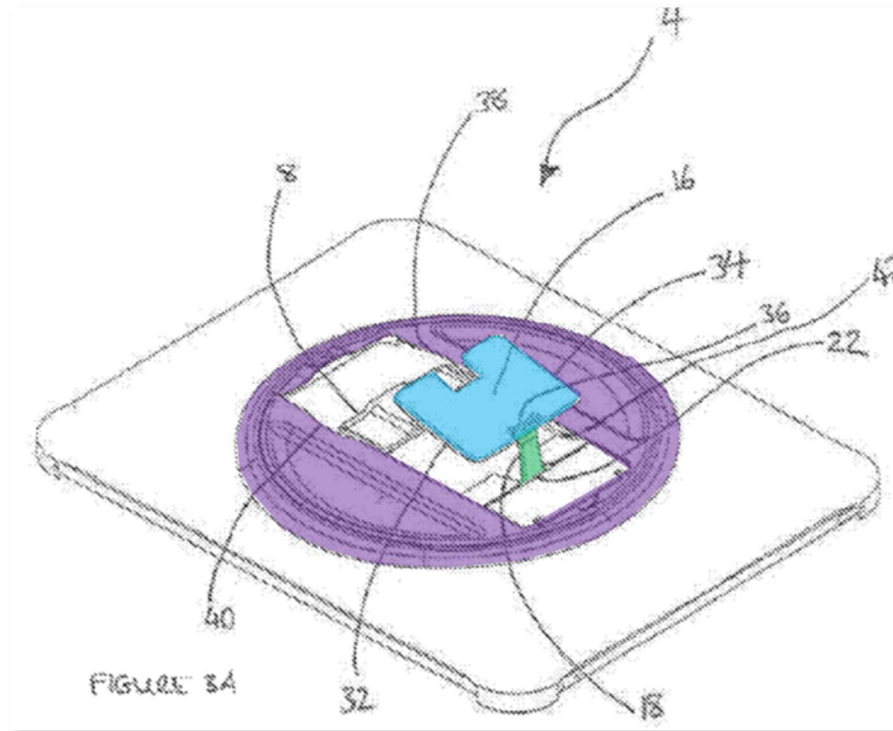
The '691 Patent describes a stabilising device for a portable computing device. EX1001; EX1003, ¶46. The device described therein purports to “allow[] a user to effectively hold and support a portable computing device in one hand, and react against the rotational forces which are exerted when... the user rotates the portable computing device from one orientation to the other[.]” EX1001, 6:55-59. Figure 2A of the '691 Patent depicts such a device in a closed position.



Id., Fig. 2A. As shown in Figure 2A, portable computing device 2 is in communication with stabilising device 4, which includes a **base plate**², and **finger support member** 12 with **first and second space elements** 14, 18, and first and second ends 32, 34. *Id.*, 9:42-59. Also part of the stabilising device 4 are connecting plate 24 and slidable portion 8, which, when slid in the direction of connecting plate

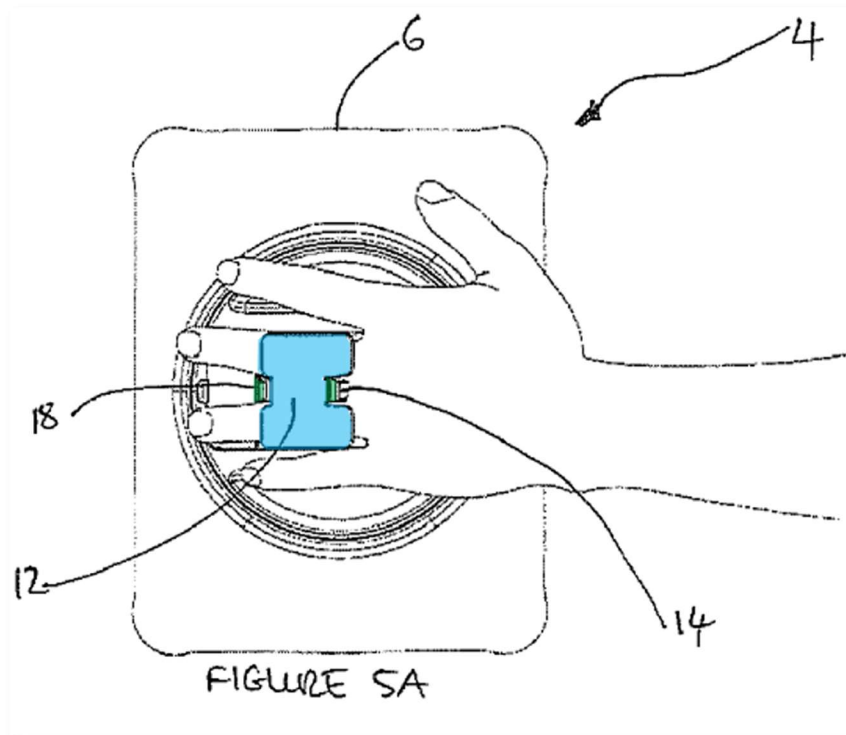
² For clarity, this Petition correlates textual descriptions with figure annotations through use of the same colors.

24, forces the stabilising device 4 into an open position. Figure 3A shows a stabilising device 4 in an open position. *Id.*, 9:60-10:7.



Id., Fig. 3A.

In Figure 3A, the slidable portion has been slid towards connecting plate 24 (not labeled). In response, pivots 22 and 36 at the ends of **spacer element** 18 (and corresponding pivots at the ends of **spacer element** 14, occluded), lift **finger support member** 12 from the underlying rotatable base plate (unlabeled), which allows a user to place fingers between the **base plate** and the **finger support member** 12 as shown in, for instance, Figure 5A.



Id. at Figure 5A.

The '691 Patent has 20 Claims, with Claims 1 and 20 independent. Claim 1 recites:

1. A stabilising device for a portable computing device,
the stabilising device comprising:
 - a base plate configured to be mounted on the portable
computing device and rotatable relative to the portable
computing device;
 - a unitary finger support member;
 - a first spacer element connected to the unitary finger
support member and to the base plate; and
 - a second spacer element connected to the unitary finger
support member and to the base plate;

wherein, the unitary finger support member is moveable between a closed position in which the unitary finger support member is substantially flush with the base plate and an open position in which the unitary finger support member is spaced from the base plate such that a user can insert at least one unitary finger between the base plate and the unitary finger support member.

EX1001, Col. 11:34-50. Claim 20 recites:

20. A stabilising device for a portable computing device, the stabilising device comprising:

a base plate configured to be mounted on the portable computing device and rotatable relative to the portable computing device;

a finger support member having a first side and a second side;

a first spacer element connected to the first side of the finger support member and to the base plate; and

a second spacer element connected to the second side of the finger support member and to the base plate;

wherein, the finger support member is moveable between a closed position in which the finger support member is substantially flush with the base plate and an open position in which the finger support member is spaced from the base plate such that a user can insert at least

one finger between the base plate and the finger support member; and
wherein the base plate is rotatable when the finger support member is in the closed position.

Id., Col. 12:46-66.

In sum, the '691 Patent is directed to devices and methods for stabilising a portable computing device. EX1003, ¶49.

C. The Prosecution History of the '691 Patent

The application that resulted in the '691 Patent (U.S. Patent Application No. 14/786,589; the "'589 Application") was filed on October 23, 2015, and issued on October 30, 2018. EX1001. The '589 Application claims priority to Great Britain Application No. 1307605.4, filed on April 26, 2013, through PCT Application No. PCT/GB/051307, filed on April 25, 2014. *Id.*

After a preliminary amendment to remove multiple dependencies (EX1002, at 198), the Office issued a first Office Action on May 2, 2016 (*id.* at 214 et seq.), including rejections of many claims based on U.S. Patent Publication No. 2012/0228346 to Huang ("Huang") alone, in combination with U.S. Patent No. 8,794,686 to Grieve ("Grieve '686"), or in combination with Grieve '686 and U.S. Patent Publication No. 2015/0115112 to Noh ("Noh"). *Id.* at 216-219.

In response to that Office Action, Applicant did not amend any claims but argued that Huang does not teach or suggest the “spacer element” and “finger support member” limitations of Claim 1. *Id.* at 242. Applicant further argued that incorporating the teachings of Grieve ’686 into Huang would require a significant redesign and that Grieve ’686 did not remedy the purported deficiencies of Huang. *Id.* at 246. Applicant argued that Grieve ’686 is not analogous art because it is directed towards drinks trays in the hospitality industry. *Id.* at 246-247.

On December 27, 2024, following Applicant’s arguments, the Office issued an Office Action that largely mirrored the prior non-final rejection, rejecting Applicants arguments that the asserted references were non-analogous and finally rejecting all pending claims under 35 U.S.C. §§ 102 or 103 in view of combinations of Huang, Grieve ’686, and Noh. *Id.* at 253, 255-258. In response, Applicant filed a request for continued examination and amended its claims, incorporating a limitation into pending Claim 1 requiring “a second spacer element connected to the finger support member and to the base plate[,]” which Applicant argued was lacking from the cited references. *Id.* at 276, 280 et seq.

The Office issued another non-final Office Action rejecting all pending claims on May 3, 2017. *Id.* at 291. The Examiner also indicated that Applicant’s prior arguments in view of Applicant’s prior amendment were unpersuasive, as the arguments were based on features of Applicant’s alleged invention that did not

appear in the claims. *Id.* at 299. After an interview with the Examiner, Applicant again amended its claims. *Id.* at 316-317.

The Office issued another final Office Action, dated December 8, 2017, maintaining that all pending claims were obvious under 35 U.S.C. § 103 over Huang in view of Grieve '686 or Huang in view of Grieve '686 and Noh. *Id.* at 336-343. Applicant filed a request for continued examination, arguing Huang taught away from combination with Grieve '686 to result in claimed invention while also maintaining its position that Grieve was non-analogous art. *Id.* at 358, 365. Applicant also argued that Huang and Grieve '686 had different “physiological effects on a user ... [that] are profoundly different to each other.” *Id.* at 369. Thereafter, the '691 Patent issued on October 10, 2018. *Id.* at 420.

D. Priority Date

The '691 Patent claims priority to a PCT application filed on April 26, 2013. EX1001, Cover. All of the references cited in the instant Petition qualify as prior art under that claimed priority date, which is not challenged for purposes of this Petition.

E. Discretionary Denial under § 325(d) or § 314(a) Is Not Warranted.

Petitioner has not been involved in any previous review of the '691 Patent. Additionally, the Office has not considered the combinations of references forming the grounds for this Petition, and the combinations are not redundant to any combination of references considered during prosecution. Additionally, the instant

Petition provides the analysis of Paul Hatch, an expert in fields including product design and ergonomics, which analysis has likewise not been presented to the Office before. As the same or similar arguments have not been previously considered by the Office, discretionary denial under § 325(d) is not warranted here.

Likewise, denial under § 314(a) is not warranted because application of the factors in *General Plastic Industrial Co. v. Canon Kabushiki Kaisha* demonstrates that the filing of the instant Petition is not abusive, that neither the Patent Owner, the Office, nor the Board has addressed the merits of the grounds in this Petition, and instituting the present proceeding is an efficient use of the Board's resources. IPR2016-01357 (PTAB Sept. 6, 2017) (precedential). Thus, the Board should institute trial on the instant petition.

Moreover, the Petition should not be denied under the discretionary factors set out in *Apple v. Fintiv, Inc.*, IPR2020-00019, Paper 11, at 6 (PTAB Mar. 20, 2020 (*"Fintiv I"*)). Petitioner addresses each of those factors below.

1. Whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted

The first discretionary factor does not favor denial. Although no stay of the co-pending district court litigation has yet been requested or granted, a stay would be appropriate, including if *inter partes* review is instituted. Petitioner is filing a motion for a stay concurrently with this petition, and a stay is appropriate under the

legal standard for the District of Colorado. *Smith Sport Optics, Inc. v. Burton Corp.*, 601 F. Supp. 3d 936, 943 (D. Colo. 2022). Petitioner has filed its Answer and Counterclaims and served invalidity contentions on December 18, 2024, following Respondent's identification and assertion of its claims through infringement contentions. *Id.*; EX1021, at 6. The district court will not take up issues of claim construction until June 2025. *Id.*; *id.*, pp. 6-7; and see *Well Master Corp. v. FlowCo Production Solutions, LLC*, 21-cv-02145-CMA-KLM, ECF 98 (D. Colo) (granting motion to stay, which motion was filed during claim construction briefing).

Given that a motion to stay has not yet been granted, the Board should not infer the outcome of that motion. *Intel Corp. v. VLSI Tech. LLC*, IPR2020-00158, Paper 16, at 7 (PTAB May 20, 2020); *Apple v. Fintiv, Inc.*, IPR2020-00019, Paper 15, at 12 (PTAB May 13, 2020). This factor is neutral on discretionary denial.

2. Proximity of the court's trial date to the Board's projected statutory deadline for a final written decision

The second factor weighs against discretionary denial. Trial in the litigation is not yet scheduled. See EX1021, at 9. In the District of Colorado, the median time to trial is 34 months. EX1022, at 2. Given that Patent Owner's Complaint was filed in mid-2024, it may be 2027 before the litigation is ready for trial. Regardless, it is unlikely the litigation will be ready for trial before the Board enters a final written decision based on this Petition.

3. Investment in parallel proceedings by the court and parties

The third factor also weighs against discretionary denial. While the parties have exchanged some written and document discovery, investment in the case has been minimal, and fact discovery does not close until July 30, 2025. Patent Owner has filed its Complaint, Petitioner has answered, and the parties have exchanged preliminary contentions and limited discovery. Trial has not been scheduled.

4. Overlap between issues raised in the Petition and in the parallel proceeding

The fourth factor weighs against discretionary denial. Petitioner served its preliminary invalidity contentions in the litigation on December 18, 2024. EX1021, at 6. Instituting a proceeding will allow the Board to address the art, and the issues will be narrowed in the litigation due to the estoppel provisions of 35 U.S.C. § 315(e)(2). To reduce potential overlap, if the Board institutes trial and the district court declines to stay proceedings, Petitioner will decline to assert in the related litigation the prior art combinations on which trial is instituted for the claims on which trial is instituted. The most efficient course is for the Board to address the issues before it and the district court to address only the issues that would remain.

5. Whether the Petitioner and the defendant in the parallel proceeding are the same party

Petitioner is the defendant in the litigation. EX1023. That is true of many IPR proceedings and is consistent with one purpose of IPRs as a process available to

defendants faced with allegations of infringement. This factor should not be a basis for denying institution.

6. Other circumstances that impact the Board’s exercise of discretion, including the merits

As discussed in detail below in Sections VIII.A-VIII.D, the Karmatz reference alone or in combination with Grieve or Noh, and Grieve alone or in combination with Karmatz, demonstrates that Claims 1-20 are unpatentable. This unpatentability is further amplified by the evidence provided by Petitioner’s expert, which addresses and disposes of the arguments relied on by Applicant to secure allowance. The merits of Petitioner’s argument are compelling, and this factor weighs against discretionary denial.³

As such, this Petition should not be denied on discretionary factors.

³ See Director Vidal’s June 21, 2022 Memorandum re Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation at 5 (available at [interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf](#)) (“Consistent with Congress's giving the Office the authority to revisit issued patents, the PTAB will not deny institution based on Fintiv if there is compelling evidence of unpatentability.”).

F. Secondary Considerations

At this stage of these proceedings, Petitioner has no burden to identify and rebut secondary considerations. Rather, Patent Owner must first present a *prima facie* case for such consideration, which Petitioner should then have the chance to rebut. *Sega of Am., Inc. v. Uniloc USA, Inc.*, IPR2014-01453, Paper 11, at 20 (PTAB Mar. 10, 2015). For that reason, the Board typically rejects arguments against institution based on objective indicia so that Petitioner can have a fair opportunity to address any secondary indicia evidence on reply. *Petroleum Geo-Services, Inc. v. WesternGeco LLC*, IPR2014-01478, Paper 18, at 36 (Mar. 17, 2015).

V. CLAIM CONSTRUCTION

In *inter partes* review, claims are “construed using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. 282(b).” 37 C.F.R. § 42.100(b). Claim must be given their ordinary and customary meaning as understood by a POSITA at the time of the invention in light of the specification and the prosecution history pertaining to the patent. *Id.*; *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2015) (en banc); *see also* 83 Fed. Reg. 51340, Vol. 83, No. 197 (Oct. 11, 2018). As such, this Petition and Paul Hatch’s declaration construe claim terms consistent with the understanding a POSITA would have in view of the ’691 Patent’s intrinsic evidence and, where appropriate, extrinsic evidence. *Phillips*, 415 F.3d at 1312.

Petitioner provides constructions for terms appearing in the claims of the '691 Patent below and relevant to the Petition: (1) “unitary” and (2) terms related to the “closed position” and “substantially flush.” Though Petitioner provides these constructions, the invalidity of each claim of the '691 Patent is not dependent on the adoption of any particular construction. The prior art cited herein demonstrates the invalidity of each claim under any reasonable construction of these terms.

With one exception, the term “**unitary**” always appears as part of the phrase “unitary finger support member.”⁴ EX1001, 11:34-12:66. The written description of the '691 Patent does not define “unitary.” *Id.*, *passim*. Indeed, the word “unitary” does not appear in the '691 Patent outside of the claims. *Id.* “Unitary” also did not appear in the initial claims of the application that matured into the '691 Patent. EX1002, at 124. It was added to several claims during prosecution to overcome a rejection over U.S. Patent Pub. 2012/0228346 to Huang. The Applicant argued that Huang, unlike the purported invention of the '691 Patent,

the finger support members of Huang involve *two separate entities* which pivot upwards and combine into a structure that is then situated between a user's fingers. Alternatively, claim 1, as amended, now recites that the finger support member is a ***unitary structure*** and thus ***not comprised of two separate portions***.

⁴ The final element of Claim 1 recites a “unitary finger.” EX1001, 11:44-50.

Id., at 324.⁵ Petitioner submits that, based on the intrinsic evidence and consistent with extrinsic dictionary definitions and the understanding of a POSITA, “unitary” means “one-piece” or “single-piece” such that “unitary finger support member” means “one-piece finger support member” or “single-piece finger support member.” EX1003, ¶¶26-30.

Petitioner also applies a construction for terms related to a “**closed position**” and “**substantially flush**” configuration for the stabilising grip based on the ’691 Patent’s written description, which provides:

“References to a (1) closed position of the device, to a (2) closed position of the finger support member, to a (3) closed position of the slidable element and to a (4) position in which the finger support member and its first and second ends are substantially flush with the base plate *may be taken to mean [a] position[] in which the central portion and first and second ends of the finger support member are in contact with or in close proximity to the base plate.*”

EX1001, 7:8-15 (numeration added). Limitations relevant to the enumerated “closed positions” and a position “substantially flush with the base plate” appear in Claims 1, 9, 18, and 20. EX1003, ¶¶33-34. Based on the specification’s explanation and further consistent with extrinsic dictionary definitions and the understanding of a

⁵ All emphases added unless noted.

POSITA, Petitioner applies the construction “a position in which the central portion and first and second ends of the finger support member are in contact with or in close proximity to the base plate” to the subject limitations. *Id.*, ¶¶31-36.

VI. STATUTORY GROUNDS FOR CHALLENGES AND REFERENCES USED

Ground #1: Claims 1-8, 12-16, 18, and 20 are anticipated by Karmatz, and Claims 1-18 and 20 are obvious over Karmatz.

Karmatz names a different inventor and was published on February 23, 2012. Karmatz is prior art at least under 35 U.S.C. § 102(a)(1). EX1004.

Ground #1a: Claims 14-15 and 17 are obvious over Karmatz in view of Grieve.

Grieve was published on September 9, 2011, and is prior art under at least 35 U.S.C. §§ 102(a)(1) and 102(b). EX1005.

Ground #1b: Claim 19 is obvious over Karmatz in view of Noh.

Noh names a different inventor and was published on April 30, 2015, claiming priority to an earlier effective filing date through Korean Application Nos. 10-2012-0077080 and 10-2012-0128513, filed July 16, 2012, and November 14, 2012, respectively, and is prior art under at least 35 U.S.C. §§ 102(a)(2). EX1006.

Ground 2: Claims 1-18, and 20 are obvious over Grieve alone or in view of

Karmatz.

VII. LEVEL OF ORDINARY SKILL IN THE ART

A POSITA in the field of the '691 Patent, as of April 26, 2013, would have an undergraduate degree in mechanical engineering, industrial design or a similar degree, plus 1-3 years of experience designing consumer product and accessories for such products, including at least one year of experience in applying ergonomic principles in the design of consumer products. Alternatively, without an undergraduate degree, a POSITA would have an additional 2 years of experience in the field. Such a designer would have at least a basic understanding of material sciences (*i.e.*, the differences and advantages behind using different materials during manufacturing), at least a basic understanding of manufacturing processes (*i.e.*, design concerns that will affect the ability to manufacture a product through different manufacturing processes and the techniques for same), and at least a basic understanding of ergonomics. EX1003, ¶¶37-38. However, the '691 Patent would be invalid on the bases described herein under a different (e.g., similar or higher) level of ordinary skill in the art.

VIII. CLAIMS 1-20 ARE UNPATENTABLE.

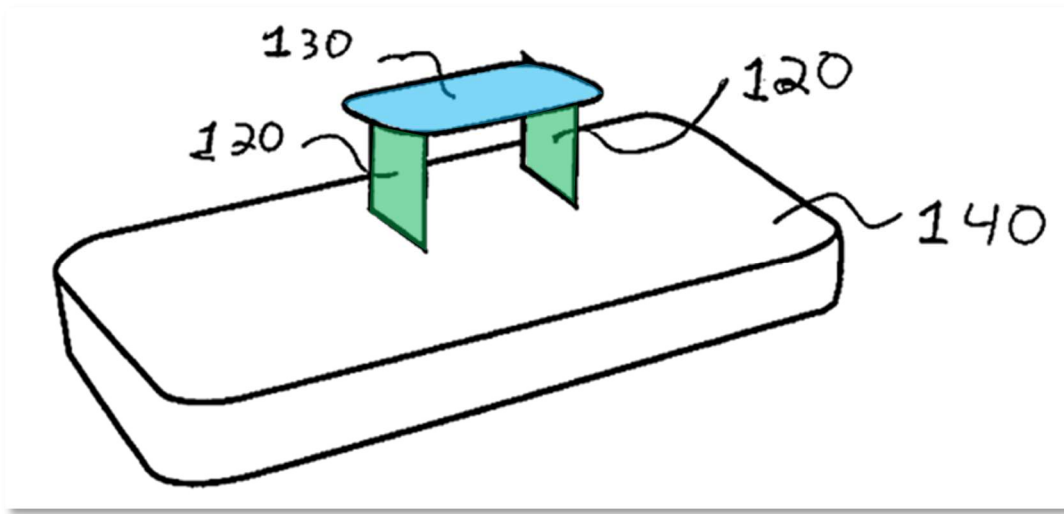
- A. **Ground 1: Claims 1-8, 12-16, 18, and 20 are invalid under 35 U.S.C. § 102 as anticipated by Karmatz, and 1-18 and 20 are further invalid under 35 U.S.C. § 103 as obvious over Karmatz.**

1. Overview of Karmatz

Karmatz is entitled “APPARATUS FOR GRIPPING HANDHELD DEVICES.” EX1004, cover. Including as illustrated in Figure 23, it teaches a device used for gripping a handheld device that provides increased stability while increasing range of motion of a user’s thumb to interact with the device. *Id.*, [0011]; EX1003, ¶55. Karmatz discloses a grip for various devices, including tablet computers. EX1003, ¶55; EX1004, [0027]; EX1001, 1:23-24 (“Portable computing devices, also known as tablet computers, or tablets[.]”).

Karmatz is analogous art, because it is from the same field of endeavor (stabilising devices for holding objects) and alternatively is pertinent to the problem identified by the ’691 Patent including as purported through prosecution (improving improved stability and/or ergonomics, for holding objects). EX1003, ¶¶57-58, 71-82; EX1004, [0006], [0010], [0029], [0032], [0047] (“The plurality of extensions 130 *provide additional stability*[.]”).

Specifically, Karmatz discloses a grip device with a **base**, one or more **extensions**, and a **grip**. EX1004, [0047] (describing Fig. 23); EX1003, ¶56. An exemplary illustration of Karmatz’s grip device is at Figures 23 through 25:



EX1004, Figure 23; [0047] (“Referring to FIGS. 23 to 25, a grip device according to an embodiment of the present invention may include a plurality of extensions 120 connecting a **base** 110[.]”).

Karmatz teaches and expressly directs that the grips, extensions, and base components described in its various embodiments be interchanged consistent with the disclosure, expressly instructing a POSITA to modify and combine its disclosures. EX1004, [0052]; EX1003, ¶¶60-67. Further, it would have been trivial and well within a POSITA’s skill to modify Karmatz to arrive at the claimed structures. EX1003, ¶¶65-66. Any such modification or combination would be obvious in view of the skill in the art for numerous reasons, including at least as an application of known techniques to improve similar products in the same way, and as a known technique to a known device (method, or product) ready for improvement yielding predictable results or as obvious to try in view of the same

knowledge. *Id.* ¶67.

2. Claim 1

a) Claim Element 1p

[1p] A stabilising device for a portable computing device, the stabilising device comprising:

Assuming the preamble is limiting, Karmatz discloses a stabilising device for a portable computing device. EX1003, ¶¶68-85.

Karmatz discloses “[a]n apparatus for gripping a handheld device.” EX1004, Abstract; EX1003, ¶84. Meeting the ’691 Patent’s definition of “portable computing device” as being “tablet computers,” Karmatz explains that the “handheld device” used with its grip includes tablet computers.⁶ *Id.*; EX1004, [0012] and [0027].

Karmatz provides that its apparatus promotes stability when used with a personal computing device by “allow[ing] a user to securely hold a handheld device with a single hand[,]” and that configuring its grip with two extensions (the ‘spacers’ of the ’691 Patent) provides “additional stability.” EX1004, [0011]; *id.* [0006]-[0010] (stating design of devices “may create difficulty for users to securely grip

⁶ Based on Karmatz’s inclusion of “tablet” within its scope of disclosure, construction of “portable computing devices” is not required to resolve this Petition.

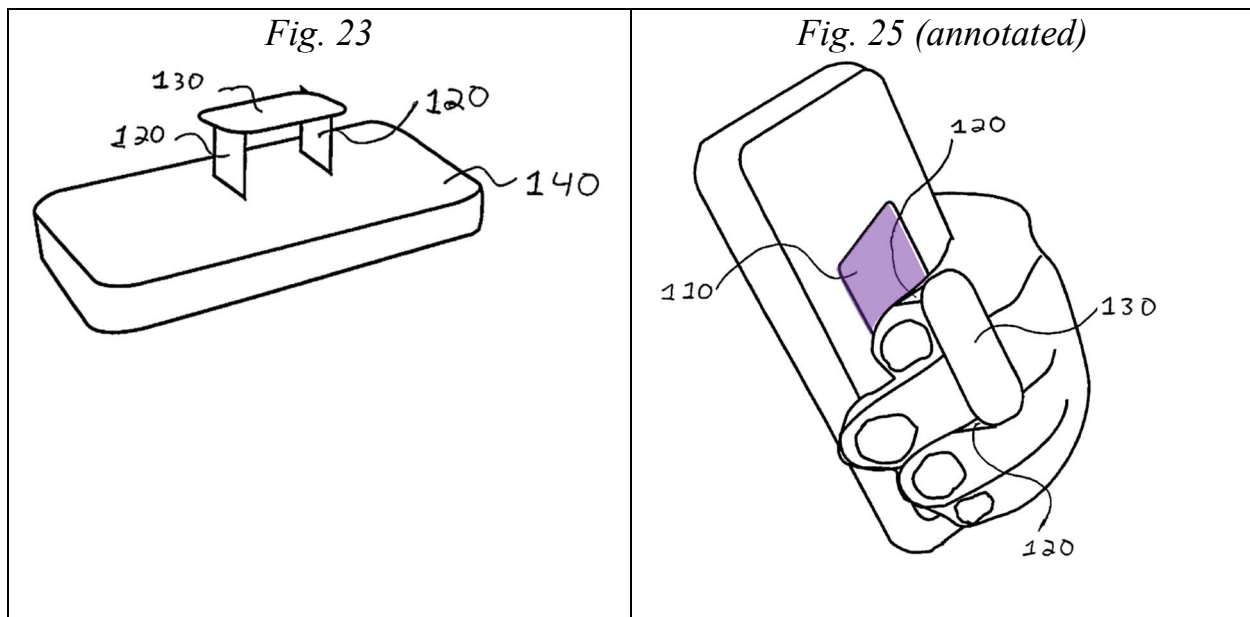
these devices with a single hand, which results in users frequently dropping and damaging their devices” leaving “a need for an apparatus for *securely holding devices*[.]”); [0047] (“The plurality of extensions 130 [sic] provide additional stability[.]”); EX1003, ¶80; *id.* ¶¶69-82.

b) Claim Element 1a

[1a] a base plate configured to be mounted on the portable computing device and rotatable relative to the portable computing device;

Karmatz discloses or renders obvious Claim Element 1a. EX1003, ¶¶86-96.

Karmatz discloses a **base plate** 110 configured to be mounted on the claimed portable computing device, illustrated through Figures 23 and Figure 25 and related descriptions:



EX1004, Fig. 23 and 25 (annotated) and [0047]; EX1003, ¶¶87-88. As Karmatz explains, “a grip device according to an embodiment of the present invention may include a plurality of extensions 120 connecting a **base** 110 to a grip 130.” EX1004, [0047]; *id.* at [0012]; EX1003, ¶88.

Karmatz discloses its grip device (which includes the base [plate] 110) rotates relative to the handheld device. EX1003, ¶¶89-90. Karmatz thus teaches that the rotatability of its base relative to the portable computing device [handheld device 140] is a common features for the base plates, for example as illustrated and explained at Figures 9 and 10. *Id.*, ¶¶89-91; EX1004, [0035] *and* Figs. 9 and 10; [0047]. Karmatz confirms that the rotatability of devices was a design goal, and no features disclosed by Karmatz would prevent any such rotatability. EX1003, ¶91; EX1004, [0005], [0028], [0035]. Karmatz necessarily includes rotatability of the base 110, and inherently discloses this limitation.

Alternatively, Karmatz renders this limitation obvious. EX1003, ¶¶67(b), 92-95. Modification to further include rotatability would be motivated by the explicit interchangeability of bases, extensions, and grips, and the known market trend of consumers rotating their devices while in use, creating a pressure and design incentive for a rotatable grip device compatible for both use cases. *See id.*; EX1004, [0035], [0052]. EX1009, [0005] (“market trend in [] portable devices is that they now offer screen displays and keyboards that can alternate between a relatively

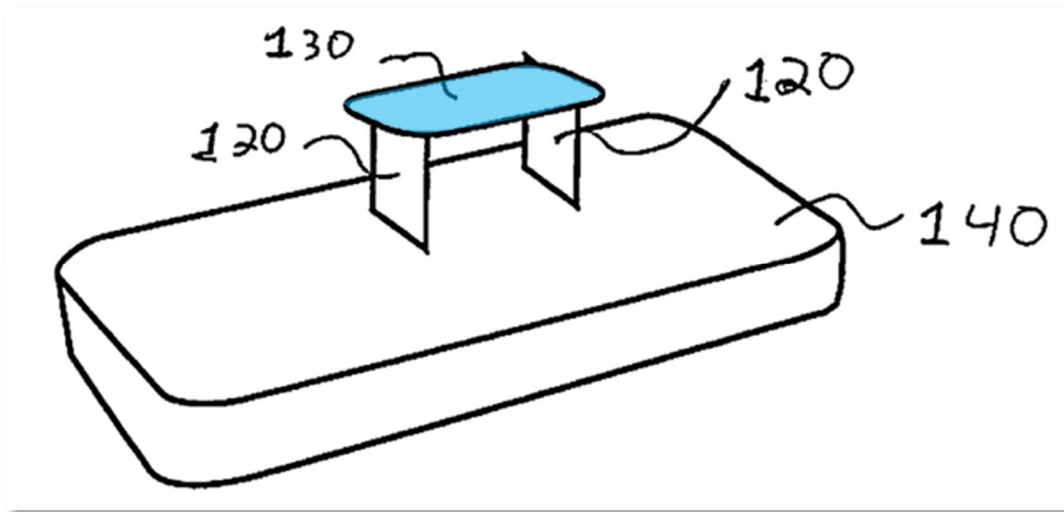
vertical and relatively horizontal configuration”), [0017]. A POSITA would have been motivated to make the base 110 rotatable, resulting in the claimed structure.

Karmatz therefore anticipates and renders obvious this limitation. EX1003, ¶¶85-96.

c) Claim Element 1b

[1b] a unitary finger support member;

Karmatz discloses the unitary (‘single piece’) finger support member of Claim Element 1b. EX1003, ¶¶97-98. Karmatz describes a “**grip** 130” of Figure 23, which corresponds to the “unitary finger support member” of Claim Element 1b. EX1004, [0046]-[0047]; EX1003, ¶98.



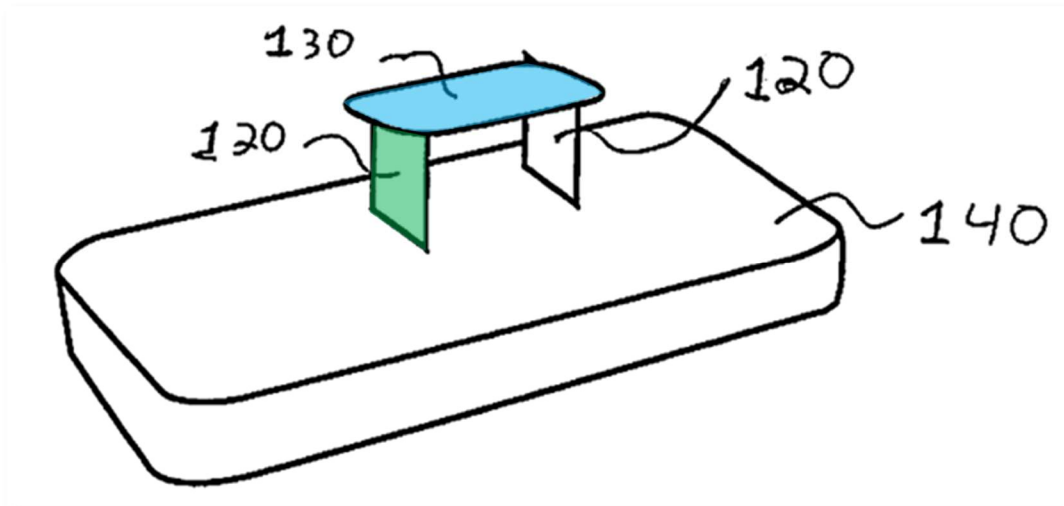
EX1004, Fig. 23 (annotated); *id.* at [0012] (“The apparatus includes ... **a grip**”); EX1003, ¶¶97-98.

d) Claim Element 1c

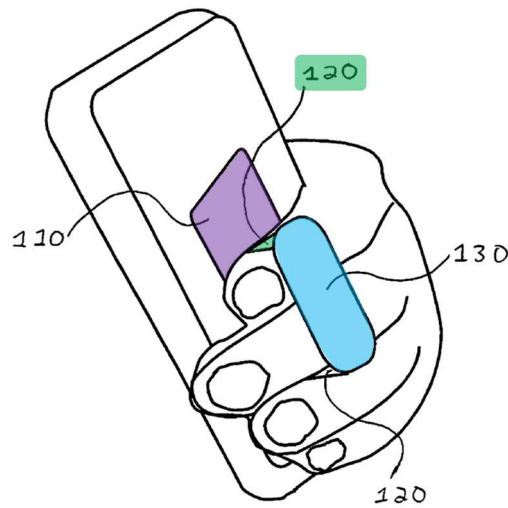
[1c] a first spacer element connected to the unitary finger support member and to the base plate; and

Karmatz discloses Claim Element 1c. EX1003, ¶¶99-100.

Specifically, Karmatz discloses a first spacer element (“**extension** 120;” annotated below) which is connected to the unitary finger support element (“**grip** 130”; annotated below) and the base plate (“**base** 110”; annotated below). EX1004, [0047]; EX1003, ¶100:



EX1004, Fig. 23 (annotated).



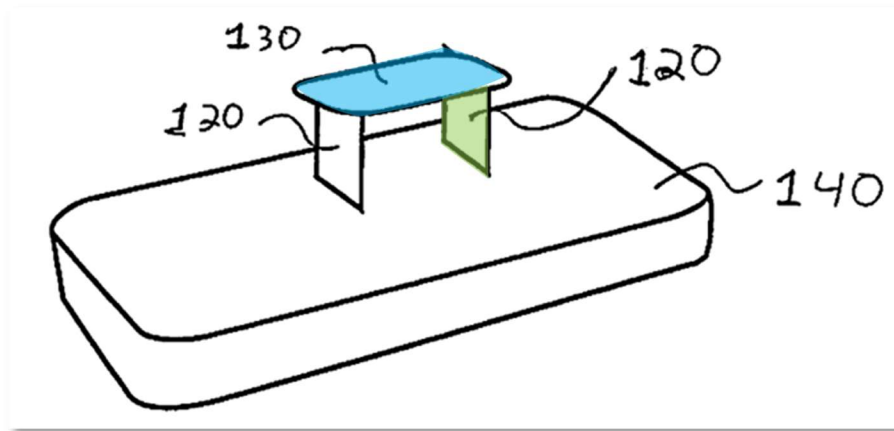
Id., Fig. 25 (annotated), [0047] (“a grip device according to an embodiment of the present invention may include a plurality of **extensions** 120 connecting a **base** 110 to a **grip** 130.”); *id.*, [0012].

e) Claim Element 1d

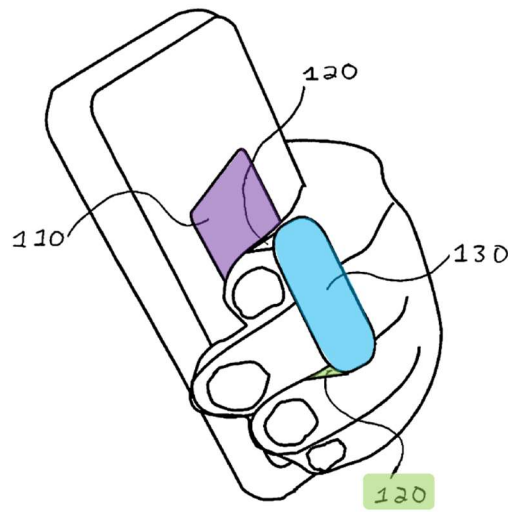
[1d] a second spacer element connected to the unitary finger support member and to the base plate;

Karmatz discloses Claim Element 1d. EX1003, ¶¶101-102.

Specifically, it discloses a second spacer element (a second “**extension** 120”) connected to the unitary finger support element (“**grip** 130”) and the base plate (“**base** 110”). EX1004, [0047]; EX1003, ¶102.



EX1004, Fig. 23 (annotated).



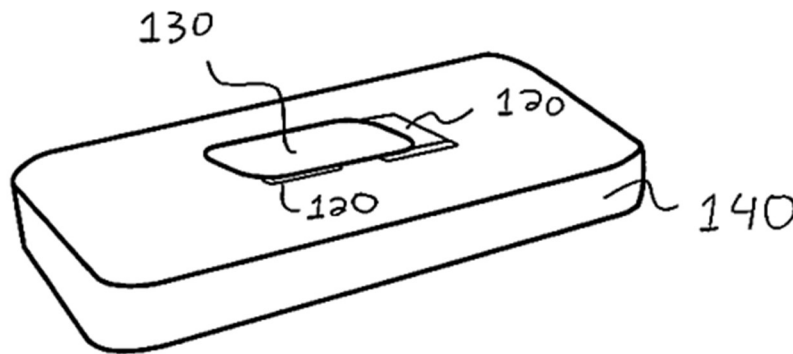
EX1004, Fig. 25 (annotated), [0047] (“Referring to FIGS. 23 to 25, a grip device ... may include a **plurality of extensions** 120 connecting a **base** 110 to a **grip** 130.”); *id.* at [0012]; EX1003, ¶¶101-102.

f) Claim Element 1e

[1e] wherein, the unitary finger support member is moveable between a closed position in which the unitary finger support member is substantially flush with the base plate and

Karmatz discloses Claim Element 1d. EX1003, ¶¶103-110.

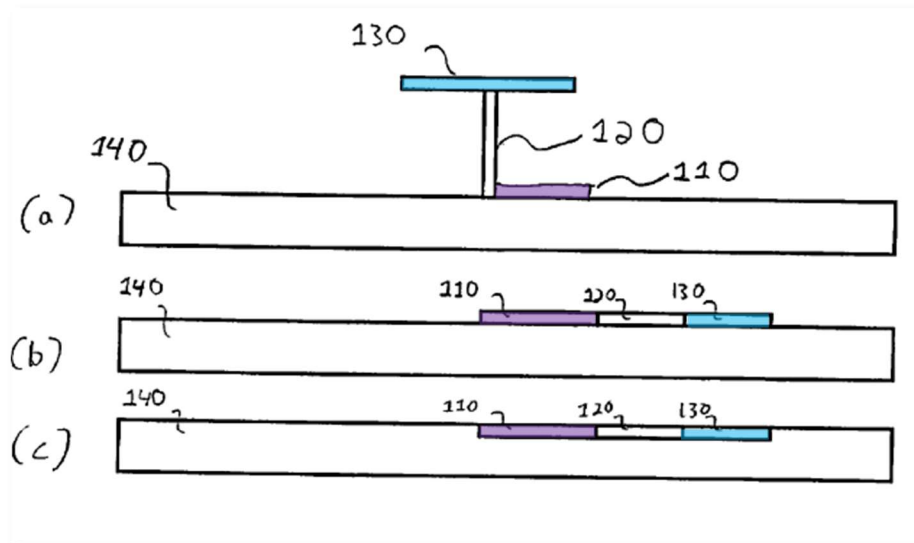
Specifically, it discloses that the unitary finger support member (**grip** 130) is moveable between a closed position in which the unitary finger support member is substantially flush with the base plate (**base** 110) as it is in a ‘position in which the central portion and first and second ends of the finger support member are ... in close proximity to the [base 110]’ and an open position. EX1003, ¶¶104-105. This is shown in Figure 24, depicting the device of Figure 23 in a closed position:



EX1004, Fig. 24, [0012], [0047]. Karmatz therefore discloses this limitation. EX1003, ¶¶104-105.

The ‘close proximity’ nature of Karmatz’s disclosures is confirmed through Figure 7, which illustrates a configuration where “the grip device fits into a recess

within the handheld device 140 in a *closed position*, such that an upper surface of the grip device in the closed position is *substantially coplanar* with an adjacent surface of the handheld device 140”:



EX1004, Fig. 7, [0036]; EX1003, ¶¶106-109.

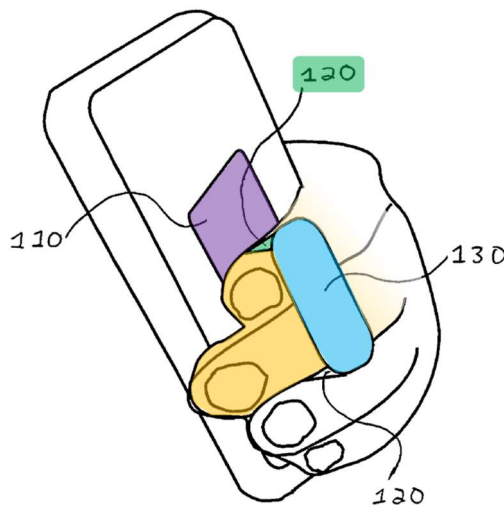
Further, it would have been obvious to a POSITA to modify the grip to lay even flatter, including at least to improve the existing feature and resulting in the claimed structure. EX1003, ¶110. A POSITA would have been motivated to enhance the features disclosed in Figure 23 and Paragraph 0047 with additional teachings from Karmatz regarding the grip laying substantially flush to the base plate. EX1004, [0052]; EX1003, ¶110. Any such modification would be motivated for numerous reasons, and at least as an improvement to Karmatz’s interest in a fold-flat grip device and instruction to combine teachings. Karmatz anticipates and renders obvious this limitation. EX1003, ¶¶103-110.

g) Claim Element 1f

an open position in which the unitary finger support member is spaced from the base plate such that a user can insert at least one unitary finger between the base plate and the unitary finger support member.

Karmatz discloses Claim Element 1f. EX1003, ¶¶111-113.

Specifically, it discloses an open position in which the unitary figure support member (**grip 130**) is spaced from the base plate (**base 110**) such that a user can insert **at least one unitary finger** between the base plate and the unitary finger support member. EX1003, ¶112. For example, in Figure 25:



EX1004, Fig. 25; *id.* [0033] (disclosing the grip designed “to move from *an open position* in which a user grips”).

Based on the foregoing, Karmatz anticipates Claim 1, or otherwise renders it obvious.

3. Claim 20

The language of Claim 20, the only other independent claim of the '691 Patent, largely aligns with the language of Claim 1. EX1003, ¶¶114-115. Differences between Claim 1 and Claim 20 are presented in red and underlined.

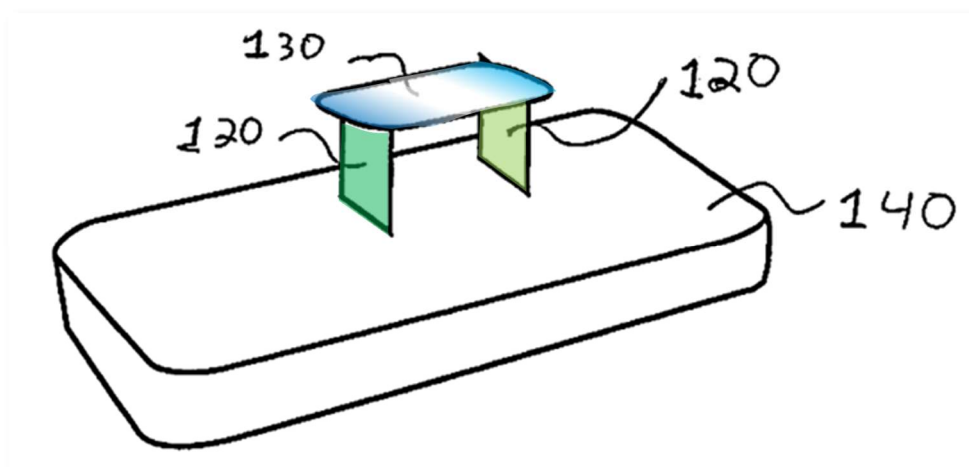
Claim 1	Claim 20
1. A stabilising device for a portable computing device, the stabilising device comprising:	20. A stabilising device for a portable computing device, the stabilising device comprising:
a base plate configured to be mounted on the portable computing device and rotatable relative to the portable computing device;	a base plate configured to be mounted on the portable computing device and rotatable relative to the portable computing device;
a <u>unitary</u> finger support member;	a finger support member <u>having a first side and a second side</u> ;
a first spacer element connected to the <u>unitary</u> finger support member and to the base plate; and	a first spacer element connected to <u>the first side of</u> the finger support member and to the base plate; and
a second spacer element connected to the <u>unitary</u> finger support member and to the base plate;	a second spacer element connected to <u>the second side of</u> the finger support member and to the base plate;
wherein, the <u>unitary</u> finger support member is moveable between a closed position in which the <u>unitary</u> finger support member is substantially flush with the base plate and	wherein, the finger support member is moveable between a closed position in which the finger support member is substantially flush with the base plate and

an open position in which the <u>unitary</u> finger support member is spaced from the base plate such that a user can insert at least one <u>unitary</u> finger between the base plate and the <u>unitary</u> finger support member.	an open position in which the finger support member is spaced from the base plate such that a user can insert at least one finger between the base plate and the finger support member; and
	<u>wherein the base plate is rotatable when the finger support member is in the closed position.</u>

There are three primary differences between Claim 1 and Claim 20: (1) the repeated limitation of Claim 1 that the claimed finger support member is “unitary;” (2) the limitations of Claim 20 that the claimed finger support member has a first and second side that are connected to the claimed first and second spacer elements respectively; and (3) the additional limitation of Claim 20 that the claimed base plate is rotatable when the finger support member is in the closed position. *Compare* EX1001, 11:34-50 *with* 12:46-66; EX1003, ¶115.

Regarding the requirement of Claim 1 that the finger support member be unitary, the absence of this limitation from Claim 20 means additional analysis is unnecessary as, in this respect, Claim 20 is broader than Claim 1. *See* Section VIII.A.2.c) above; EX1003, ¶116.

Karmatz discloses Claim 20's limitations that the finger support member have a **first** (dark blue) and **second side** (light blue), and that it is these sides that are attached to the **first** (dark green) and **second spacer elements** (light green):



EX1004, Fig. 23 (annotated); EX1003, ¶117.

Regarding the additional limitation of Claim 20 requiring that the base plate be rotatable when the finger support member is in the closed position (i.e., when the sides and central portion of the finger support member is in close proximity to the base), Karmatz discloses this arrangement for the same reasons as discussed for Claim Limitation 1a. *See* Sections V and VIII.A.2.b); EX1003, ¶¶67(b), 118; EX1004, at [0035] (“the grip device may rotate ... with respect to the handheld device 140.”), [0052]. Karmatz discloses that the “grip device may rotate” without regard for whether it was in an open or closed position, disclosing that it rotates without regard for whether the grip is open or closed. *Id.*; EX1003, ¶118. The grip

would necessarily be rotatable in the closed position if it was rotatable in any position, and is at least inherently disclosed. EX1003, ¶¶119-120.

Further, it would have been obvious for a POSITA to enhance the features related to Figure 23 with additional teachings from Karmatz to satisfy this limitation based on Karmatz's explicit instruction to combine teachings and POSITA's knowledge. EX1004, [0052]; EX1003, ¶¶121-122. This modification would be motivated for multiple reasons, at least based on the reasons stated above for Claim Limitation 1a based on Karmatz's own teachings and market trends, which modification would inherently disclose this limitation based on the lack of any teaching that the base would rotate only when open. EX1003, ¶122.

Karmatz anticipates or renders obvious Claim 20. EX1003, ¶¶114-123.

4. Claim 2

2. A stabilising device according to claim 1, wherein the base plate is releasably mounted onto the rear face of the portable computing device.

Karmatz discloses a base plate (base 110) that is releasably mounted onto the rear face of the claimed portable computing device (handheld device 140). *Id.* at ¶¶124-127. "The base 110 may be formed as a plate or other shape, ***removably*** or permanently affixed to the [handheld] device by an adhesive or other mounting hardware such as screws or rivets.... The base 110 may also be integrated into a

removable protective case, clip-on, or slide-on attachment/accessory for the handheld device 140.” EX1004, [0029]; EX1003, ¶124.

Further, it would have been obvious for a POSITA to enhance the features related to Figure 23 with the foregoing teachings from Karmatz to satisfy this limitation. EX1003, ¶¶125-127 and ¶124. A POSITA would have been motivated to modify Karmatz for numerous reasons, including as required by use for the grip and as one of a finite number of known combinations (*i.e.*, permanently or releasably mounted) wholly predictable to a POSITA with an expectation of success. EX1003, ¶126.

5. Claim 3

3. A stabilising device according to claim 1, wherein the base plate is housed in a casing configured to be mounted on the portable computing device.

Karmatz discloses this limitation. EX1004, Fig. 23; EX1003, ¶¶128-132. Karmatz teaches that the apparatus of Karmatz Claim 1 (covering the teachings of at least Figure 23) can be “integrated into a removable sleeve adapted to substantially cover at least one surface of the handheld device.” EX1004, Fig. 23 and Claim 13; EX1003, ¶¶128-129.

Furthermore, this claim is rendered obvious over the collective teachings of Karmatz. EX1003, ¶¶130-132, *id.* ¶¶44(a), 67(a). Karmatz includes explicit teachings that “[t]he base 110 may also be ***integrated into a removable protective***

case ... for the handheld device 140.” EX1004, [0029], Claim 21, and Figs. 23-25; EX1003, ¶129. A POSITA would have been motivated to house the base plate of Karmatz, such as shown in Figure 23, into a housing in view of market trends to enclose tablets into protective cases, which was well-known in the art. EX1003, ¶¶129-131; *id.* ¶¶44(a), 67(a). A POSITA would be motivated at least by the same market trend and design pressure to permit use of Karmatz whether or not a protective case was used. EX1003, ¶¶130-131.

6. Claim 4

4. The stabilising device according to claim 3, wherein the base plate is rotatable relative to the casing.

Karmatz discloses that the base plate (base 110) is rotatable relative to the casing of Claim 3. *Id.*, ¶¶133-136; *id.* ¶¶44(a)&(d), 67(a)-(b). Karmatz discloses the base plate is housed in a casing configured to be mounted on the claimed portable computing device. *See supra* Claim 3. Karmatz discloses that the grip device (which includes base [plate] 110) is rotatable, leaving the base plate rotatable relative to the casing. EX1004, [0035] (“[A]ccording to an embodiment of the present invention, the grip device may rotate and/or be re-attached or repositioned with respect to the handheld device 140 such that the handheld device 140 may rest in a portrait and/or landscape orientation.”); EX1003, ¶133.

To the extent Karmatz does not explicitly disclose that base 110 rotates relative a casing, such rotatability is inherently disclosed. EX1003, ¶134. In any embodiment where a protective case of Karmatz is mounted on the claimed portable computing device and the base is rotatable relative the claimed portable computing device, the base plate is necessarily rotatable relative the protective case as well. EX1003, ¶134; EX1004, [0029], [0035].

Alternatively, Karmatz—including as illustrated at Figure 23—renders this limitation obvious in view of Karmatz’s collective teachings, based on Karmatz’s express instruction to combine its teachings and further motivated on numerous grounds including (for example) design pressure to make the grip device compatible with an enclosed handheld device in any given orientation. EX1003, ¶¶44(d), 67(a), 135-136.

7. Claim 5 and 6

5. The stabilising device according to claim 1, wherein the first spacer element is connected to the base plate by means of a pivotal connection.

6. The stabilising device according to claim 1, wherein the first spacer element is connected to the unitary finger support member by means of a pivotal connection.

Karmatz discloses that the first spacer element (extension 120) is connected to the base plate (base 110, Claim 5) and to the unitary finger support member (grip 130, Claim 6) by means of a pivotal connection. EX1003, ¶¶137-144. This is illustrated by Figures 23 and 24, which show Karmatz’s grip device in an open and

closed connection. *Id.*, ¶137. These figures show the closure of the grip 130 through movement of a pivotal connection between a first spacer element and the base (lavender annotation) and between the first spacer element and the unitary finger support member (red):

Fig. 23

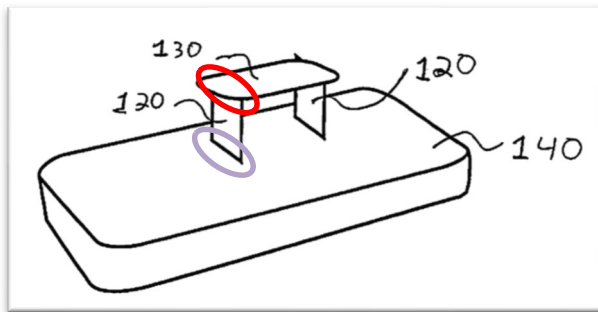
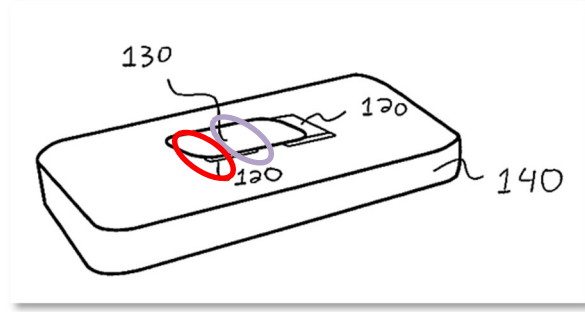


Fig. 24



EX1004, Figs. 23, 24; EX1003, ¶137 (annotated); and *id.* Figs. 11-13; [0038] (progression from a “gripping position” (Fig. 11, “open” state) through an “intermediate state” (Fig. 12) into a “closed” state (Fig. 13)); EX1003, ¶¶138-139. If not explicitly disclosed, this limitation is inherently disclosed by Karmatz. EX1003, ¶¶139.

Further, it would have been obvious to enhance the features related to Figure 23 with additional teachings from Karmatz as well as a POSITA’s knowledge. EX1003, ¶¶67(d) and 140-144. Karmatz discloses construction of its grip device as a single component, varying “thickness of the material may vary in order for the grip device to be more flexible” as a pivotal connection between the first spacer element, base plate, and unitary finger support member. EX1004, [0033]; EX1003, ¶¶140-

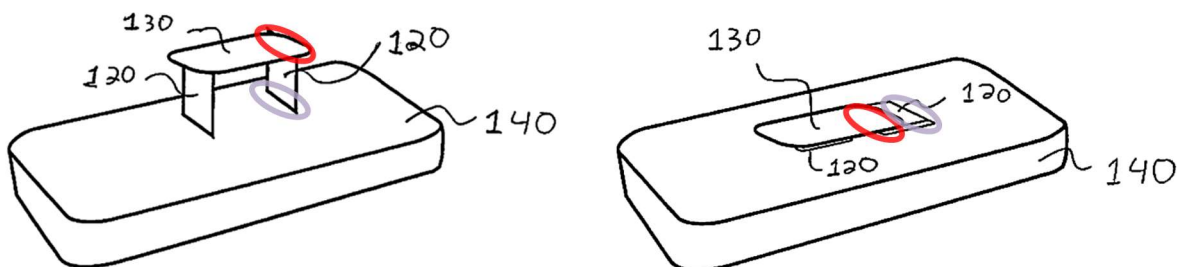
142. Use of living hinges to create such a pivotal connection was well known. EX1003, ¶¶140; *Compare* EX1008, 6:14-17 (describing use of living hinge for similar structure) *with* EX1001, at 4:33-35 (“the pivotal connection may comprise a fold, notch or groove formed between the at least one spacer element and the base plate”). Such a modification would be motivated for various reasons, for example Karmatz’s disclosed ability to collapse the grip device from an open to a closed position and manufacturing efficiencies. EX1003, ¶¶143-144.

8. Claims 7 and 8

7. The stabilising device according to claim 1, wherein the second spacer element is connected to the unitary finger support member by means of a pivotal connection.

8. The stabilising device according to claim 1, wherein the second spacer element is connected to the base plate by means of a pivotal connection.

As explained above, Karmatz discloses a pivotal connection between a spacer element and its base plate, and its unitary finger support member. *See supra* Claims 5 and 6; EX1003, ¶¶145-148; *id.* 137-144. Figures 23 and 24 of Karmatz depict the same use of a pivotal connection between the second spacer element and the unitary finger support member (**red**, Claim 7) and the base plate (**lavender**, Claim 8):



EX1004, Figs. 23 and 24 (annotated), [0038]; EX1003, ¶145.

Further, first spacer element, base plate, and unitary finger support member (as above, Figs. 23 and 24) necessarily pivot around a pivotal connection. *And see* EX1004, Figs. 11-13, [0038] (explaining progression from a “gripping position” (Fig. 11, “open”) through an “intermediate state” (Fig. 12) into a “closed” state (Fig. 13)); EX1003, ¶146. If not explicitly disclosed, this limitation is inherently disclosed by Karmatz. EX1003, ¶146.

Further, it would have been obvious to enhance the features related to Figure 23 with the other teachings of Karmatz as well as a POSITA’s knowledge to satisfy this limitation. EX1004, [0033]; EX1003, ¶¶67(d), 147. Karmatz discloses construction of its grip device as a single component, varying “thickness of the material ... in order for the grip device to be more flexible” in providing a pivotal connection between the first spacer element, base plate, and unitary finger support member. *Id.* Use of living hinges to create such a pivotal connection was well known. EX1003, ¶¶67(d), 141, and 147; *Compare* EX1008, 6:14-17 (describing use of living hinge for similar structure) *with* EX1001, 4:33-35 (“the pivotal connection may comprise a fold, notch or groove formed between the at least one spacer element and the base plate”). Such a modification would be motivated for various reasons,

including at least Karmatz's disclosed ability to collapse the grip device from an open to a closed position and manufacturing efficiencies. EX1003, ¶¶141-143, 147.

9. Claims 9-11

9. The stabilising device according to claim 8, wherein the pivotal connection is provided between the second spacer element and a slidable element in communication with the base plate, the slidable element being slidable such that the unitary finger support member can move between the closed position and the open position.

10. The stabilising device according to claim 9, wherein the slidable element is housed in a recess in the base plate.

11. The stabilising device according to claim 10, wherein the recess defines a channel in which slidable element can move.

Karmatz discloses that the pivotal connections between the first and second spacer elements (extensions 120) and the base [plate] (110) “may be formed as a *slidable bar that slides into a recess of the base 110*, the grip 130, and/or the handheld device 140.” EX1004, [0043]; EX1003, ¶¶149-152. Karmatz's disclosure of such a “slidable bar,” housed into a recess defining a channel in the base plate is explicitly connected to the process of converting between a closed (*see* Section V) and an open position, disclosing Claims 9, 10, and 11. EX1004, [0043]; EX1003, ¶149.

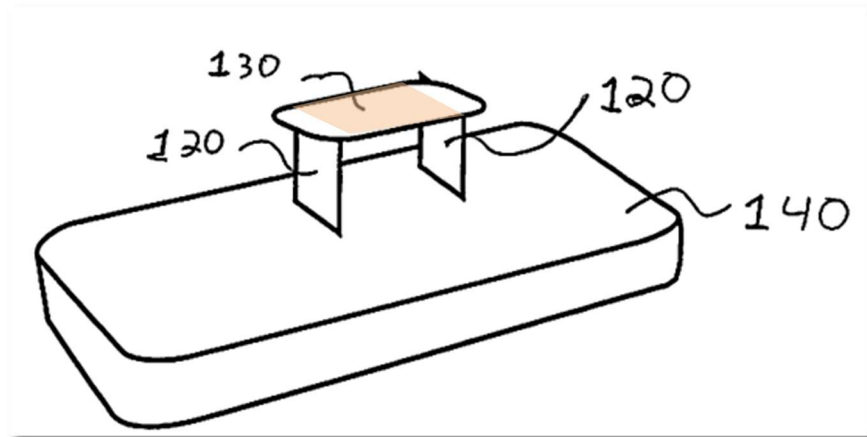
It would have been obvious for a POSITA to enhance the features related to Figure 23 with additional teachings from Karmatz to satisfy this limitation. EX1003, ¶150. A POSITA would have been motivated for several reasons, including for

example Karmatz's instruction to combine teachings, and as one of a finite number of identified options, with predictable results and expected success. EX1003, ¶151.

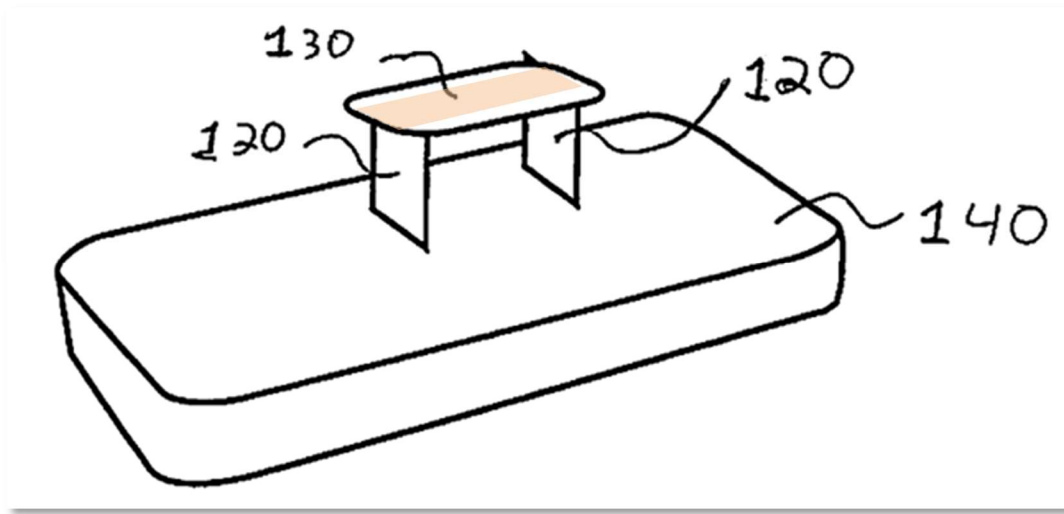
10. Claim 12

12. The stabilising device according to claim 1, wherein at least one of the first spacer element and the second spacer element is/are connected to a central portion of the unitary finger support member.

Karmatz discloses this limitation. EX1004, Fig. 23; EX1003, ¶153. The first spacer element and second spacer element illustrated in Figure 23 of Karmatz (extensions 120) are attached at pivot points connected to the central portion (orange, below) of the unitary finger support member (grip 130):



EX1004, Fig. 23; EX1003, ¶153. Additionally:

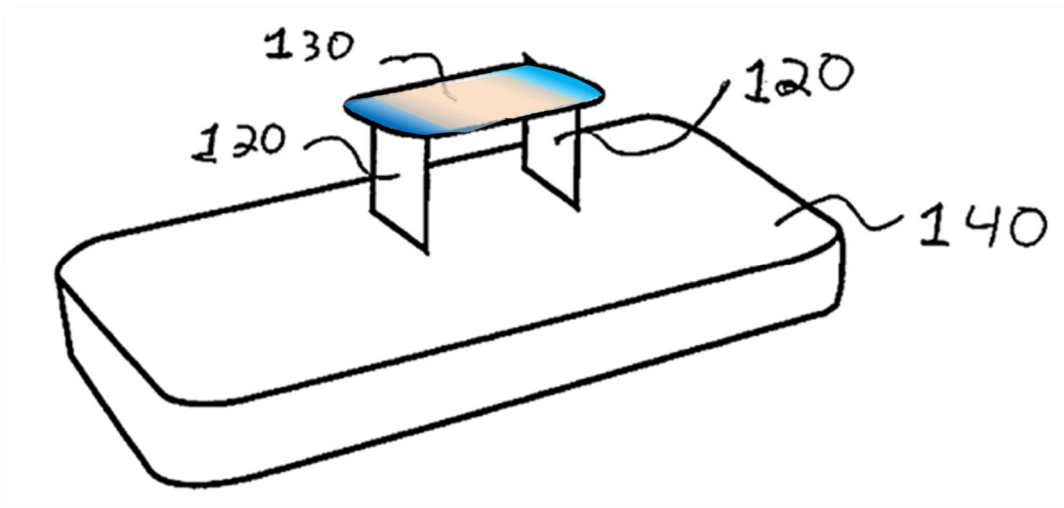


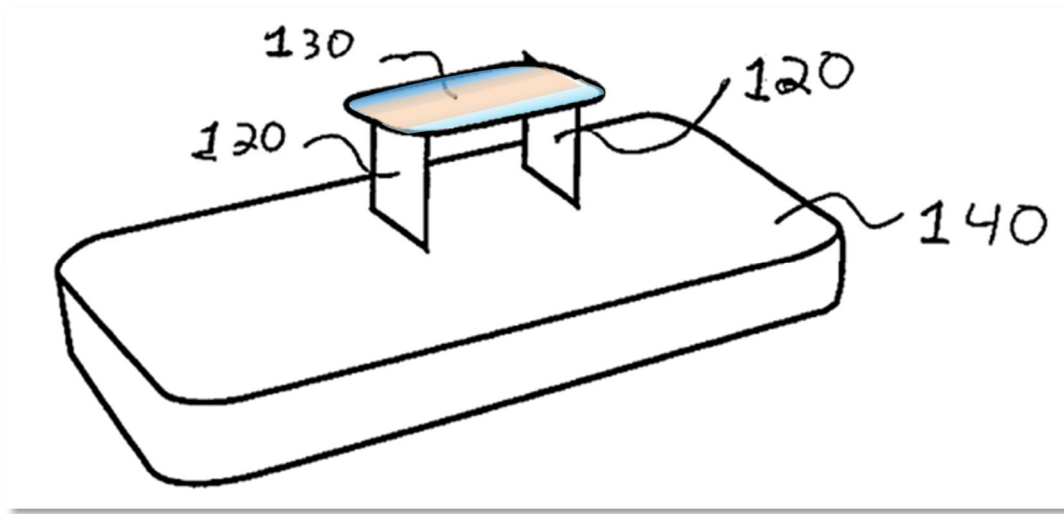
EX1004, Fig. 23 (annotated); EX1003, ¶153.

11. Claim 13

13. The stabilising device according to claim 1, wherein the unitary finger support member comprises first and second ends extending from opposite sides of a central portion thereof.

Karmatz discloses this limitation. EX1004, Fig. 23; EX1003, ¶154. Karmatz discloses a **first end** and a **second end** extending from opposite sides of a **central portion** of a unitary finger support member (grip 130), along either axis:





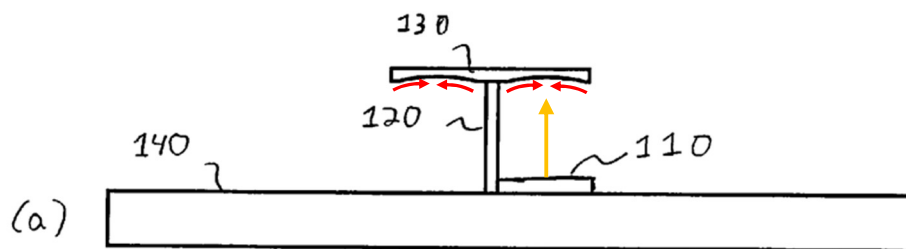
EX1004, Fig. 23 (annotated); EX1003, ¶154.

12. Claims 14 and 15

14. *The stabilising device according to claim 13, wherein the unitary finger support member comprises guide means at an edge of the unitary finger support member.*

15. *The stabilising device according to claim 14, wherein the guide means comprise at least one arcuate element arcing in a direction away from the base plate.*

Karmatz discloses a unitary finger support member (grip 130) including guide means at an edge, comprising multiple (“at least one”) **arcuate elements** that arc in a **direction away** from the base plate:



EX1004, Fig. 8A; EX1003, ¶¶155-160. Karmatz clarifies that the grip 130 “may have contours corresponding to the curves of a user’s finger or fingers while they are positioned to hold the handheld device 140 while using the grip device.” EX1004, [0032]; *id.* at Fig. 8, [0052], Claim 16; EX1003, ¶¶157-158.

Further, it would have been obvious to enhance the features of the Figure 23 embodiment using Karmatz’s other teachings based on Karmatz’s direction to combine teachings as well as a POSITA’s knowledge. EX1004, [0052]; EX1003, ¶159. The knowledge in the art informed practitioners that “contact with sharp edges and corners can lead to discomfort” and should be rounded to improve user comfort. EX1003, ¶¶44(c), 159. A POSITA would understand that including curved features facilitates engagement with the grip, including to soften corners of the grip to improve ergonomics and comfort based on known techniques. EX1003, ¶44(c), 159, 161; EX1019, at 36, 78. A POSITA would be motivated to include such elements as an application of known techniques to improve Karmatz with predictable results, resulting in guide means comprising arcuate elements arcing away from the base. EX1003, ¶¶159-162.

13. Claim 16

16. The stabilising device according to claim 1, wherein at least the base plate, the unitary finger support member and the first spacer element are integrally formed.

Karmatz discloses that its stabilising device (*see* Claim 1) can be integrally formed: “[T]he grip device may be manufactured as a single piece.” EX1004, [0033]; *and* EX1001, 4:31-35; EX1003, ¶¶163-164. It would also have been obvious to enhance the features related to Figure 23 with additional teachings from Karmatz as well as a POSITA’s knowledge to satisfy this limitation. Karmatz discloses construction of its grip device as a single component, and such techniques were well-known in the art. EX1004, [0033]; EX1003, ¶¶67(d), 140-141, 163. Based on its simple structure, construction of Karmatz as a single piece using well-known molding techniques would have been obvious for numerous reasons including based on known manufacturing efficiencies and cost savings, with predictable results and expected success. EX1004, [0052]; EX1003, ¶163.

14. Claim 17

17. The stabilising device according to claim 1, wherein the base plate comprises one or more channels for guiding a user's fingers toward the unitary finger support member and the first spacer element.

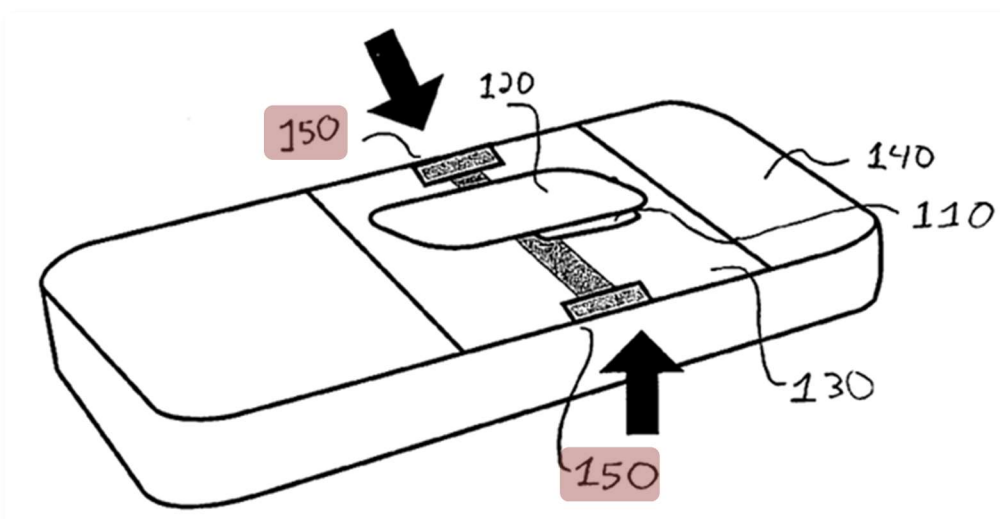
Karmatz teaches that “[a]n underside of the grip 130 may be flat ... or may have contours corresponding to curves of a user’s finger or fingers while they are positioned to hold the handheld device 140[.]” EX1004, [0032]; EX1003, ¶¶165-166. It would have been obvious to place this channel on the base plate of, e.g., Figure 23 rather than the grip, to amplify Karmatz’s teachings for ergonomics and stability. EX1004, [0032]; EX1003, ¶165. Such a modification would have been

motivated for numerous reasons, for example as the application of the disclosed teaching of the base plate and applying it to the grip 130, which would be one of a set of finite set of possible applications of the same knowledge and would provide for increased comfort, and which would yield results predictable to a POSITA. *Id.* at ¶165. Further, a POSITA would have understood, based on the express teaching of Karmatz, that such contours would serve to provide tactile feedback and guide the user's fingers toward the appropriate location to engage the grip. *Id.* at ¶¶165; EX1004, [0052].

15. Claim 18

18. The stabilising device according to claim 1, wherein the stabilising device further comprises a retaining element to secure the unitary finger support member in the closed position when not in use.

Karmatz discloses a retaining element (**latch mechanism** 150) that “allow[s] a user to open or close the device by pressing... the grip 130 of the grip device[.]” EX1004, [0039]; EX1003, ¶¶167-171; *see* Section V.



EX1004, Fig. 16.

Karmatz further renders this claim obvious, based on Karmatz's direction to that its components were interchangeable and motivated by Karmatz's teaching that the grip should fold flat when not in use; EX1003, ¶170.

B. Ground 1a: Claims 14-15 and 17 are obvious over Karmatz in view of Grieve

1. Overview of Grieve

Grieve is entitled "TRAY AND DEVICE FOR STABILISING A TRAY." EX1005, Title. It teaches a stabilising a device, which is attached to a drink tray and enables a tray bearer to support or stabilise the tray from underneath to reduce the risk of the tray tipping and spilling its contents. *Id.*, Abstract; EX1003, ¶¶173-175.

Grieve discloses, for example in Figs. 2-3 and further illustrated in Figs 1, 4-6, the related and general text, its stabilising device:

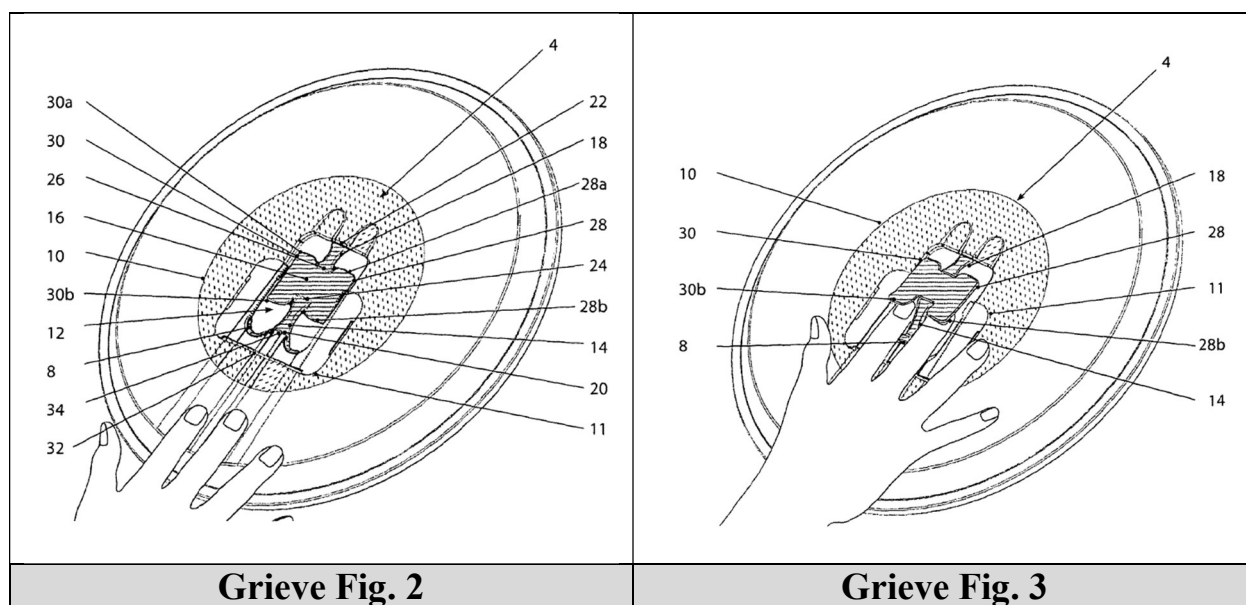
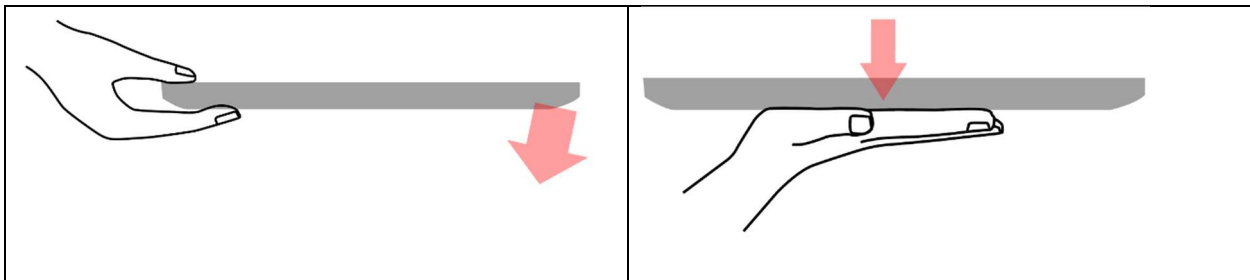


Figure 2 shows Grieve's stabilising device in a closed position. EX1005, 12:18-19; EX1003, ¶173. Figure 3 shows a grip in which a user's fingers engaging the device to open it. EX1005, 12:21-23; EX1003, ¶173.

Grieve includes a **base member** 10 and a **finger support member** 12. *Id.*, 13:16-17, 13:35-14:5. In Figures 2 and 3, the **base member** 10 and **finger support member** 12 are joined by **first** and **second spacer element** 14, 18, which are both pivotally connected to **base member** 10 and **finger support member** 12 at **pivot points** 20, 22, 24, and 26. *Id.*, 13:21-23, 13:34-14:2; EX1003, ¶174. The finger support member 12 is moveable between a closed position, in which the finger support member 12 is in close proximity to base member 10, and an open position, in which the finger support member 12 is spaced from the base member so that a

2. Motivation to Combine Karmatz and Grieve

Both Grieve and Karmatz are analogous art, and provide for improved stability and ergonomics. EX1003, ¶¶185-189. A POSITA looking to improve Karmatz and its teachings regarding stabilisation of a tablet or to improve its ergonomics, would not hesitate to look to the teachings of Grieve. EX1003, ¶189. A POSITA would be motivated for numerous reasons, including because both are analogous references in the same field of endeavor and pertinent to the same issues, and in view of knowledge in the art that the same stabilising device could be used with both tablets and trays. EX1003, ¶¶175-184, 186-187; EX1007, ¶57 (holder system for “electronic and non-electronic devices, such as a clipboard, a blackboard, an artist palette, a tray, etc.”). Based on the same analogies, a POSITA would understand the function of both references as shifting a center of gravity from the periphery to the center of an object. *Id.* This shift improves stability and reduces torque on the user, and a POSITA would know to investigate other grips solving similar problems:



EX1003, ¶¶44(b), 72-80 Table 3, and 175.

A POSITA charged with improving the stability of the described portable computing device would have been familiar with principles related to the positioning of the hand relative to the center of gravity and ergonomic techniques generally, and would have consulted grips, handles, holders/holds, and other structures in other contexts for their respective teachings and apply those teachings in part or in full, resulting in the claimed devices of the '691 Patent. EX1003, ¶¶189.

3. Claims 14 and 15

14. The stabilising device according to claim 13, wherein the unitary finger support member comprises guide means at an edge of the unitary finger support member.

15. The stabilising device according to claim 14, wherein the guide means comprise at least one arcuate element arcing in a direction away from the base plate.

Karmatz in view of Grieve, which discloses these limitations verbatim, renders these claims obvious. EX1003, ¶192; *id.* ¶¶190-195. Both Karmatz and Grieve are analogous art, and a POSITA would readily apply their teachings to improve the stabilising device of Karmatz, based on the concerns identified in Karmatz regarding stability and ergonomics. EX1003, ¶¶185-189, 194. This would be motivated for numerous reasons, including at least the known interchangeability of grips for both tablets and trays (EX1007, ¶57) and as an application of known techniques for improving stability and ergonomics by affixing a grip at the center of

gravity of an object yielding predictable results and expected success. EX1003, ¶¶188, 190-195.

4. Claim 17

17. The stabilising device according to claim 1, wherein the base plate comprises one or more channels for guiding a user's fingers toward the unitary finger support member and the first spacer element.

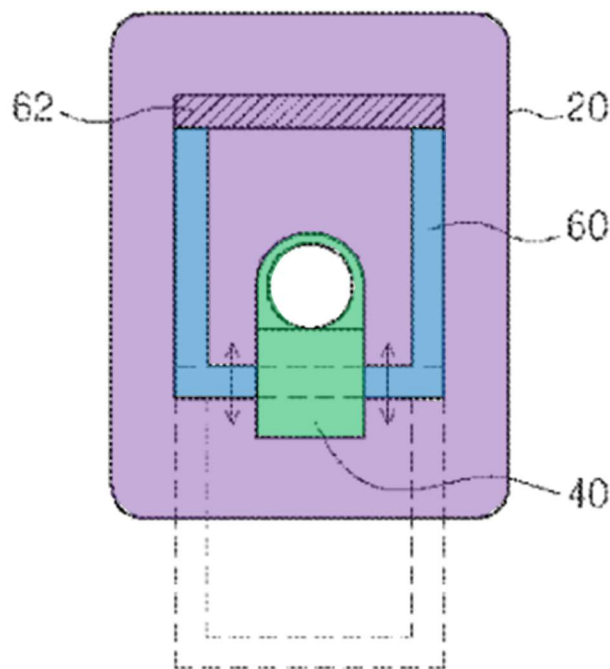
This claim is rendered obvious by Karmatz in view of Grieve. EX1003, ¶¶190, 193. For the reasons described above for Claims 14 and 15, a POSITA would have found it obvious to include guide means in the base 110 of Karmatz based on Grieve's disclosures for numerous reasons, including at least as motivated by a POSITA in view of the fact the grip device would often be on the far side of the handheld device (*i.e.*, opposite the device's screen), such that a POSITA would identify and look for solutions to provide tactile feedback permitting the user to engage the grip device without visual feedback, applying Grieve's teachings with predictable results and expected success. EX1003, ¶¶193, 195.

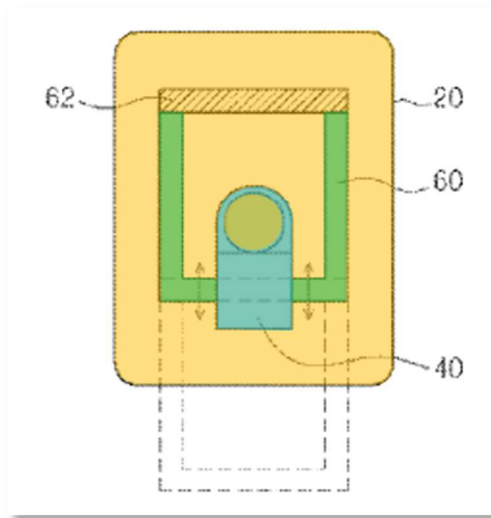
C. Ground 1b: Claim 19 is invalid under 35 U.S.C. § 103 as obvious over Karmatz in view of Noh.

19. The stabilising device according to claim 1, wherein at least one of the base plate, the unitary finger support member and/or the first spacer element is configured to be releasably secured to a display bracket.

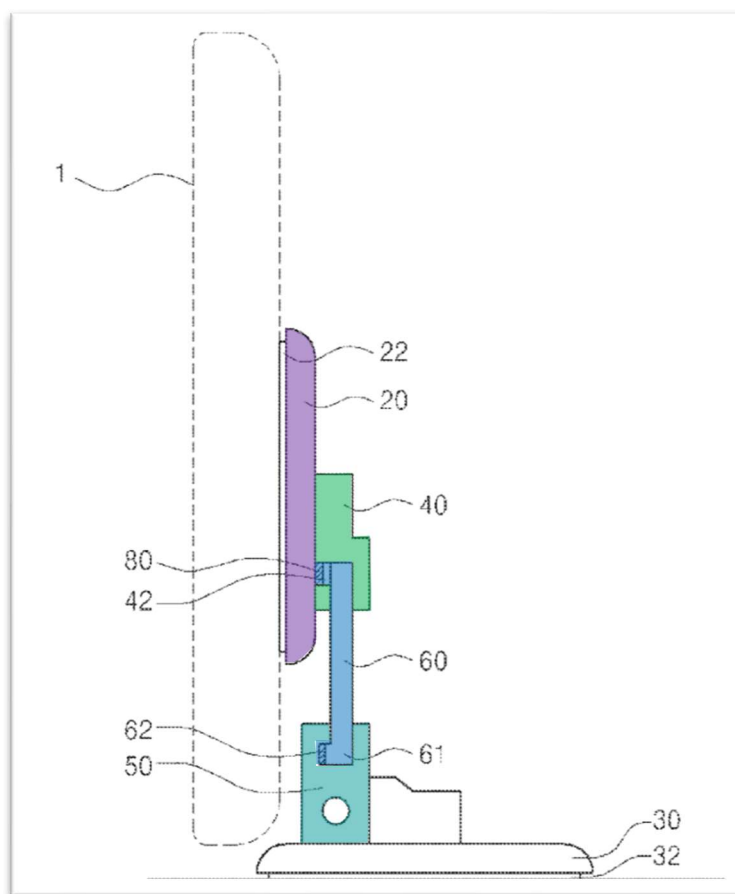
Karmatz in view of Noh renders Claim 19 obvious. EX1003, ¶¶196-202.

Noh is entitled “MULTIFUNCTIONAL ACCESSORY FOR PORTABLE DEVICE.” EX1006, cover. It teaches a ‘stabilising device’ that includes the same elements as Karmatz (*e.g.*, a “base plate” (**main body** 20), a “finger support member” (**rotatable ring** 60), a “spacer element” (**rotatable bracket** 40)). EX1006, [0017], [0023], [0027], [0044]; EX1003, ¶¶196-202:





EX1006, Fig. 4(b); [0017], [0023], [0027], [0044]; EX1003, ¶197. Noh also teaches that at least one of these elements can be releasably secured to a display bracket (**pivotal bracket 50**) as illustrated in Noh's Figure 5:



EX1006, Fig. 5; *id.*, [0017], [0023], [0025], [0027], [0049] (pivotal bracket 50 “has a receiving groove (52) for receiving and supporting the bent protrusion of the rotatable ring (60)[.]”); EX1003, ¶197.

Noh is analogous art, as it is from the same field of endeavor as the '691 Patent (increasing the stability of an object being held) and further discloses solutions to the same stability concerns identified by the '691 Patent. EX1003, ¶198; EX1001, at Title and 1:23-24; EX1006, [0002] (directing invention to tablet PCs), [0052]. Alternatively, it is analogous art as it is pertinent to the same issues purportedly

addressed by the '691 Patent (stability and ergonomics). EX1003, ¶199; EX1006, at [0002], [0052].

A POSITA would have been motivated to enhance Karmatz with Noh's ability to be used as a stand on various surfaces. EX1003, ¶¶200-201. This motivation would have been particularly strong in view of the disclosures of Karmatz and the common purpose of Karmatz's grip. EX1003, ¶¶200-201. For instance, Karmatz teaches that the grip device in an open position may be placed on a "surface such as a table with a grip 130 resting on the table such that a user may easily access a display and/or controls on a side of the handheld device 140 while the handheld device 140 is resting on the table[.]" EX1004, [0045]; EX1003, ¶200. A POSITA would have enlarged this teaching by incorporating a display bracket as taught by Noh, at least as a combination of prior art based on known methods with predictable results (*e.g.*, facilitating the mounting and use of the claimed portable computing device) and as use of a known technique (the use of a display bracket) to improve the existing product. EX1003, ¶201. The combination was further obvious to try and a reasonable variation of known work in the field. EX1003, ¶201.

D. Ground 2: Claims 1, 3-8, 12-16, and 20 are invalid under 35 U.S.C. §§ 103 as obvious over Grieve alone or in view of Karmatz.

1. Motivation to Modify Grieve

Though Grieve is drawn to a stabilising device for a tray used in hospital settings, its teachings are equally applicable to stabilising devices for portable computing devices,⁷ and a POSITA designing a stabilising device for a portable computing device would have, at the time of invention, naturally looked to grips for other use cases for inspiration. EX1003, ¶¶204-207. The interchangeability of stabilising grips across a variety of use cases was well known before April 26, 2013. *Id.*, ¶205; EX1007, ¶57. A POSITA would have been motivated to modify Grieve through application of its stabilising device to the described personal computing devices for multiple reasons, for example as application of a known solution to a known problem (*i.e.*, an identified lack of stability and/or ergonomics with the described portable computing devices). *Id.*, ¶206; EX1007, ¶57 (disclosing use of same holder for both trays and tablets).

⁷ See *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004) (a reference is analogous prior art if it “is reasonably pertinent to the particular problem with which the inventor is involved.”).

A POSITA would be motivated for numerous reasons, namely that both are analogous references in the same field of endeavor and pertinent to the same issues, and in view of knowledge in the art that the same stabilising device could be used with both tablets and trays. As one example, U.S. Patent Publication No. 2012/0068043 to Daigle *et al.*⁸, discloses a grip device for personal electronic devices, but explains that “*the holder may be configured to support other electronic or non-electronic devices*, such as a clipboard, a blackboard, an artist palette, *a tray*, etc.” EX1007, ¶57. A POSITA designing stabilising devices for portable computing devices knew and understood that such stabilising devices could be, and *were*, used on both trays and portable computing devices as well as other applications, establishing that Grieve is in the same field of endeavor as the alleged invention of the '691 Patent. EX1003, ¶¶175-181. The disclosure in a single reference of the use of the same stabilising device for both trays and portable computing devices would have motivated a POSITA to look to grips or stabilising devices from a broad swath of use cases.

⁸ Daigle is not included in any of the combinations establishing the bases for the Grounds in this Petition.

A POSITA would also have naturally understood how to modify Grieve’s stabilising device for use with a portable computing device. EX1003, ¶204. The fact that the primary use case of Grieve is in connection with a drink tray does not mean that a POSITA tasked with improving the ergonomics or stability of an object being held (here, a portable computing device) would not look to Grieve for its teachings directed to stability and ergonomic improvements for handheld objects. *Id.*, ¶204. Grieve is additionally analogous art to the claimed invention, because it is reasonably (indeed, explicitly) pertinent to the same issues purportedly addressed by the ’691 Patent: improving stability and ergonomics of an object being held. EX1003, ¶¶204-207; EX1005, 5:6-7.

2. Motivation to Combine Grieve and Karmatz

Grieve and Karmatz are analogous art (*see* Sections VIII.A.1 and VIII.B.1, above) because they are from the same field of endeavor as the alleged invention of the ’691 Patent: improving stability for an object being held. *See* EX1005 (Grieve), 1:5-6 (describing a device for *stabilising the tray* when being carried), 1:29-31, 15:6-9; EX1004 (Karmatz), [0047] (“The plurality of extensions 130 [*sic*] **provide additional stability**[.]”); *see also* EX1004, [0006], [0010]; EX1003, ¶208. Moreover, a POSITA would have understood Karmatz and Grieve to be reasonably pertinent to improving the ergonomics of grips, handles, and the like. EX1003, ¶208. A POSITA would be motivated to improve Grieve in view of Karmatz for multiple reasons,

including at least as a substitution of one known structure (Grieve) with known techniques related to a similar structure (Karmatz) with predictable results and expected success. EX1003, ¶209.

Based on these similarities, a POSITA would not hesitate improve Grieve by looking to the teachings of Karmatz and applying those teachings in part or in full, resulting in the claimed devices of the '691 Patent. EX1003, ¶¶209-210.

3. Claim 1

a) Claim Element 1p

[1p] A stabilising device for a portable computing device, the stabilising device comprising:

Assuming the preamble is limiting, Grieve teaches a stabilising device for a portable computing device. EX1003, ¶¶211-216.

Grieve discloses use of “stabilising device” to use an object without loss of control. *See* EX1005, 10:10-12 (“the tray bearer can safely transport drinks or food to a table with a reduced risk of the contents of the tray being spilled”); EX1001, 10:59-63 (“a user can safely hold a portable computing device ... and effectively resist rotation of a portable computing device contained within cover of casing 6 without risk of fumbling or dropping the device.”); EX1003, ¶212. The '691 Patent even describes use of the described apparatus to increase stability of a tray – just like

Grieve. *See* EX1001, 9:38-41 (“Guide means ... [arc] in a direction away from the underside of the *tray*”).

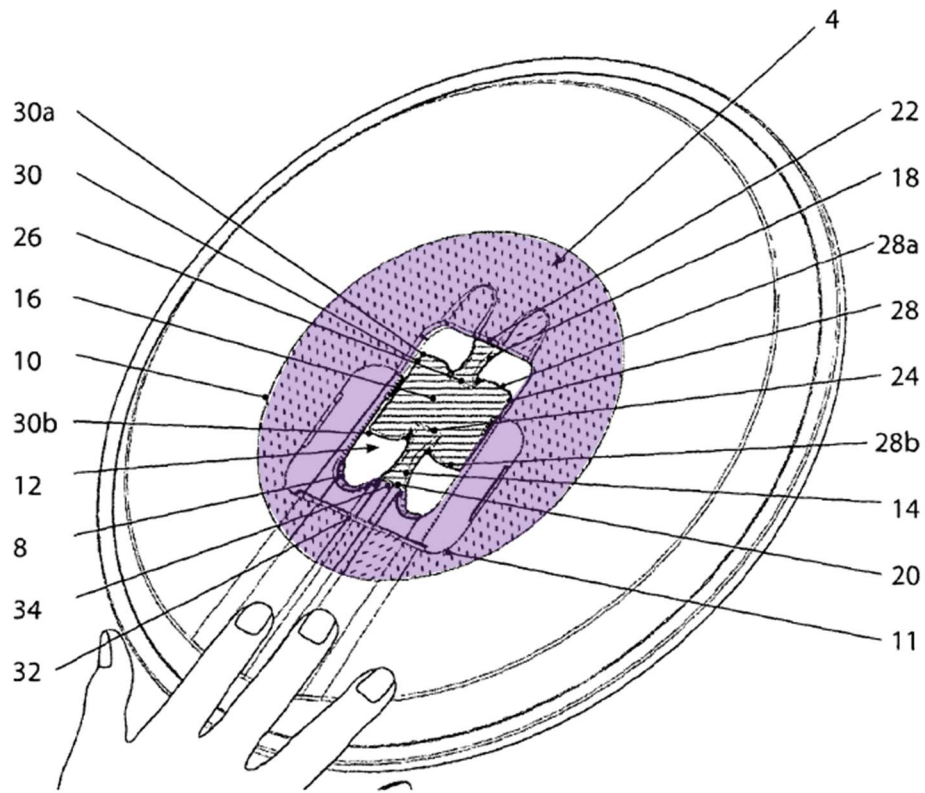
It would have been obvious to apply the stabilising device of Grieve to the claimed portable computing device. Such a modification would have been obvious for many reasons, for example as application of a known solution to an identified problem with readily predictable results, as instructed and suggested by the knowledge of POSITA. EX1003, ¶215. Both Grieve and the ’691 Patent discuss use of a “stabilising device” used with a tray or portable computing device, respectively, without loss of control. *Compare* EX1005, 10:10-12 (“the tray bearer can safely transport drinks or food to a table with a reduced risk of the contents being spilled”) *with* EX1001, 10:59-63 (“a user can safely hold a portable computing device ... and effectively resist rotation of a portable computing device contained within cover of casing 6 without risk of fumbling or dropping the device.”) EX1003, ¶¶215-216.

Based on the foregoing, it would have been obvious to apply the “stabilising device” of Grieve to the claimed portable computing device. EX1003, ¶216; EX1007, ¶57.

b) Claim Element 1a

[1a] a base plate configured to be mounted on the portable computing device and rotatable relative to the portable computing device;

Grieve discloses a “base plate configured to be mounted” (**base member 10**):



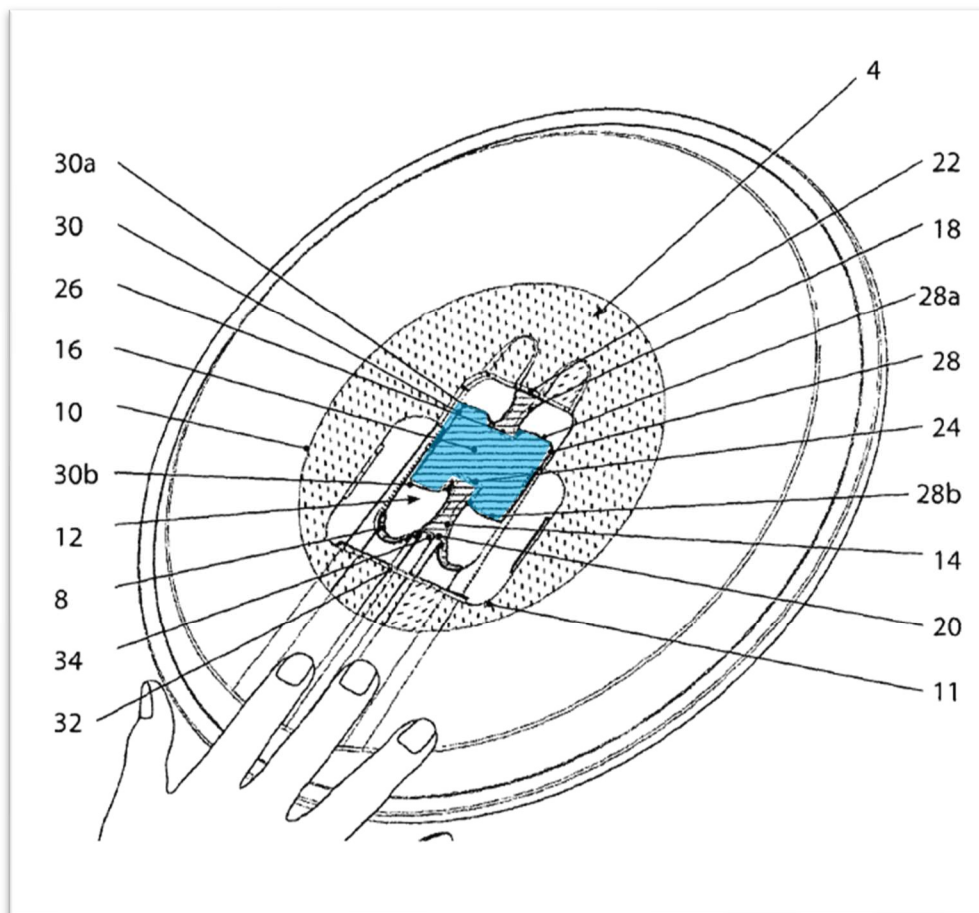
EX1005, Fig. 2 (annotated); EX1003, ¶¶219, 217-222. As explained above, Karmatz discloses the limitations of Claim Element 1a. *See* Ground 1, Claim Element 1a. A POSITA, understanding the applicability of the “stabilising device” of Grieve to analogous use cases (here, application to the claimed portable computing device to enhance stability and/or ergonomics, *see* Section VIII.D.1 and 2) would have readily appreciated the need to modify the grip to rotate as taught by Karmatz in order to avoid causing the user to (1) reposition his or her grip (reducing stability) and/or (2) attempt to rotate his or her hand at an unnatural angle to view content on the claimed portable computing device when the profile changed from portrait to landscape or

vice versa. EX1003, ¶¶217, 218-221; EX1007, ¶57 (teaching application of grips to both tablet computers and trays). Adding the rotatability of Karmatz to the “stabilising device” of Grieve was well within the skill of the art and would be motivated for many reasons, including market trends reflecting a consumer’s rotation of tablet computers with predictable results. EX1003, ¶221.

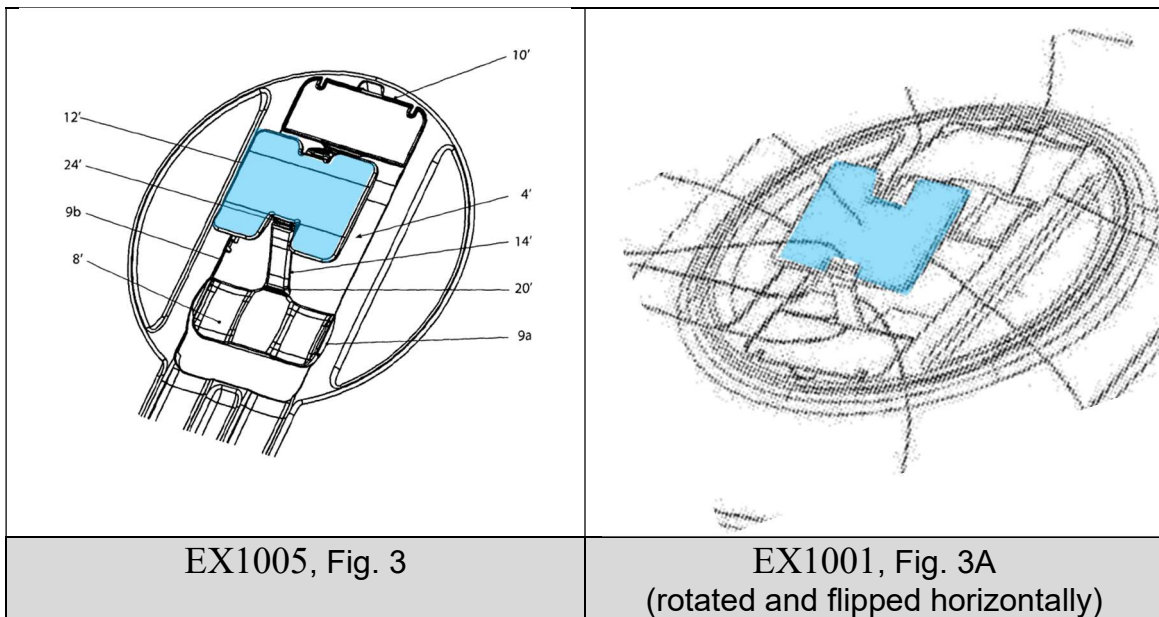
c) Claim Element 1b

[1b] a unitary finger support member;

This element is taught by Grieve as “**finger support member 12**”:



EX1005, Fig. 2 (annotated); EX1003, ¶¶223-225. A POSITA would understand the “finger support member” of Grieve to expressly disclose the “unitary finger support member” of this limitation:

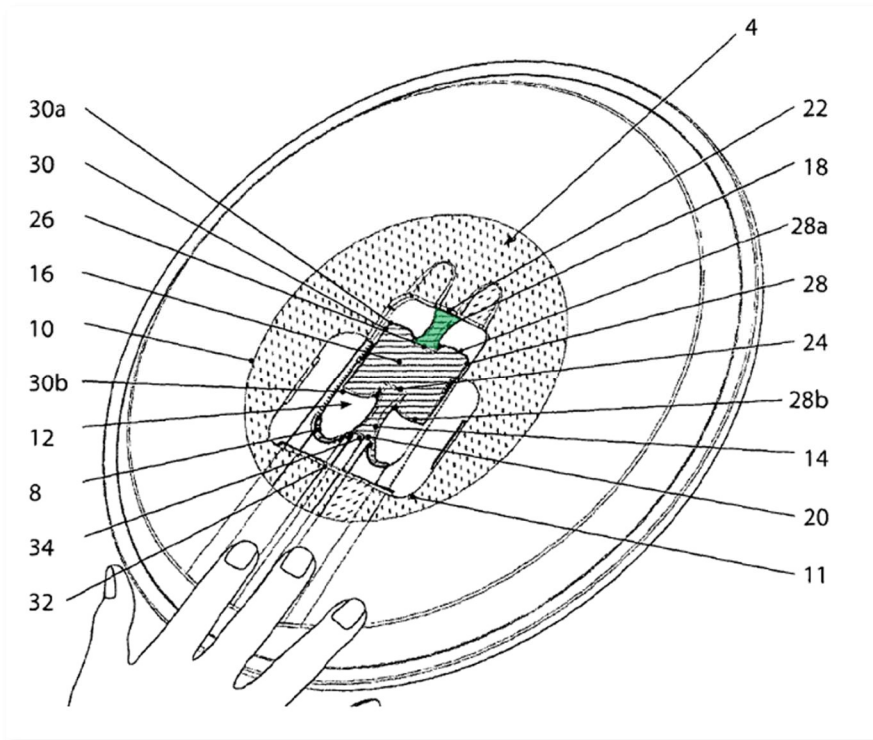


EX1003, ¶¶223-224.

d) Claim Element 1c

[1c] a first spacer element connected to the unitary finger support member and to the base plate; and

This limitation is disclosed by Grieve as “**second spacer element 18**,”⁹ which is connected to the unitary finger member and to the base plate:



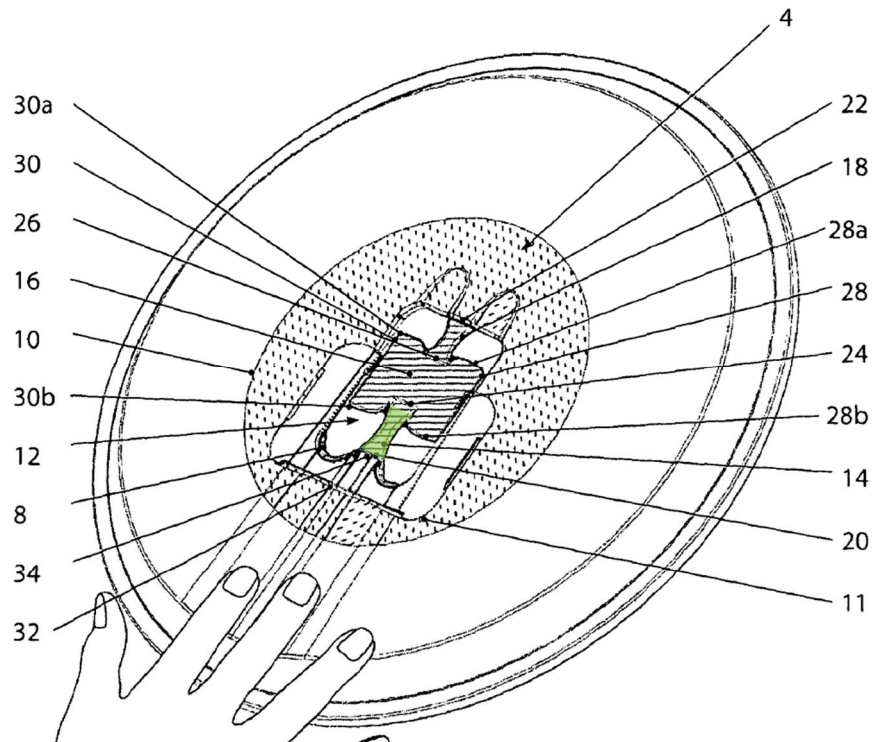
⁹ While the numeration associated with the first and second spacer elements would be understood to be arbitrary and interchangeable to a person of ordinary skill in the art, the identified elements are selected to conform to Claim 9’s limitation relating to a “slidable element.”

EX1005, Fig. 2 (annotated), 7:34-36 (“The device may also comprise a further spacer element connected to the finger support member. The further spacer element may be a second spacer element or a third spacer element.”), 13:22-14:2 (“A second spacer element is pivotally connected to base member 10 at pivot point 22.”); EX1003, ¶¶226-227.

e) Claim Element 1d

[1d] a second spacer element connected to the unitary finger support member and to the base plate;

This limitation is disclosed by Grieve as “**first spacer element** 14,” which is connected to the unitary finger member and to the base plate:



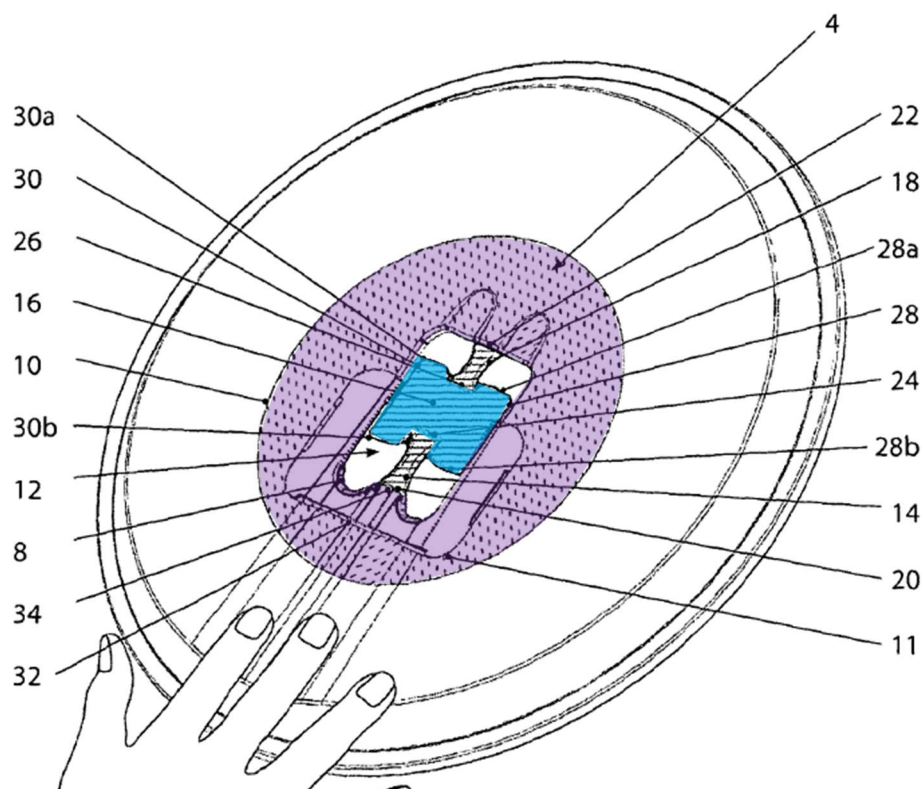
EX1005, Fig. 2, 2:17-21 (“The spacer element may be connected to the base member or underside of the tray by means of a first pivotal connection[.... and] to the finger support member by means of a second pivotal connection”); *id.*, 6:17-29; EX1003, ¶¶228-229.

f) Claim Element 1e

[1e] wherein, the unitary finger support member is moveable between a closed position in which the unitary finger support member is substantially flush with the base plate and

Grieve teaches that its unitary finger support member (**finger support member 12**) is moveable from a closed position in which it is substantially flush with the base plate (**base member 10**) in a ‘position in which the central portion and

first and second ends of the finger support member are ... in close proximity to the [base 110]” (see Section V):

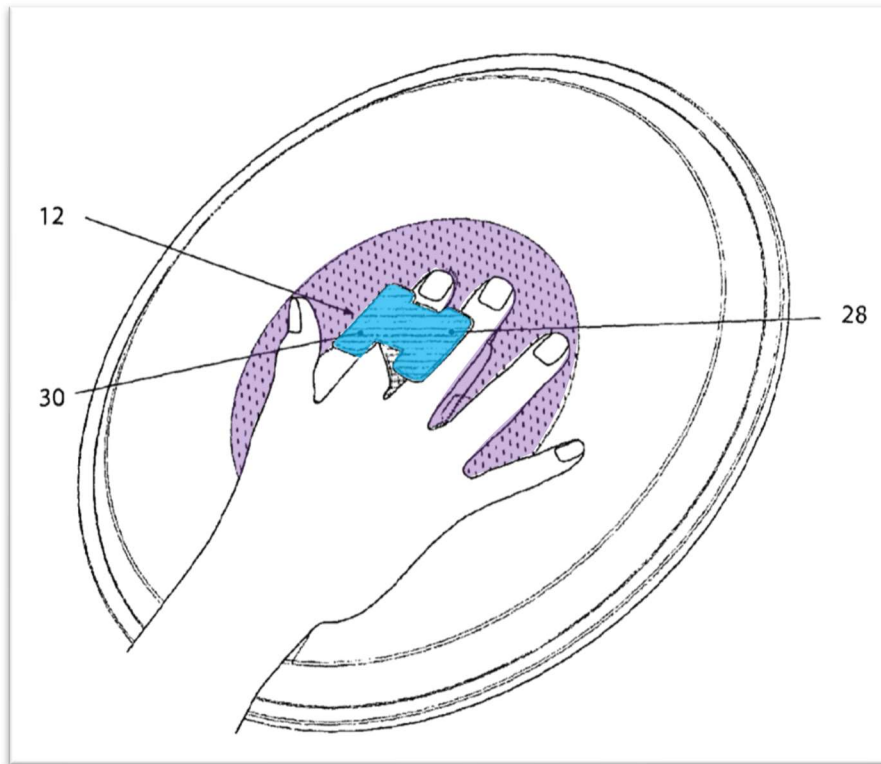


EX1005, Fig. 2; EX1003, ¶¶230-232. Grieve teaches a finger support member substantially flush and in close proximity with the base plate. EX1005, 18:7-8 (“in use, the finger support member can move between a closed position in which the finger support member is substantially flush with the underside of the tray”); *id.*, 5:15-16; 11:5-9; EX1003, ¶231. Grieve discloses this limitation. EX1003, ¶¶230-231.

g) Claim Element 1f

an open position in which the unitary finger support member is spaced from the base plate such that a user can insert at least one unitary finger between the base plate and the unitary finger support member.

Grieve teaches its unitary finger support member (**finger support member 12**) is moveable to an open position that is spaced such that a user can insert at least one unitary finger between the baseplate (**base member 10**) and the unitary finger support member:



EX1005, Fig. 5, 11:22-25; EX1003, ¶¶233.

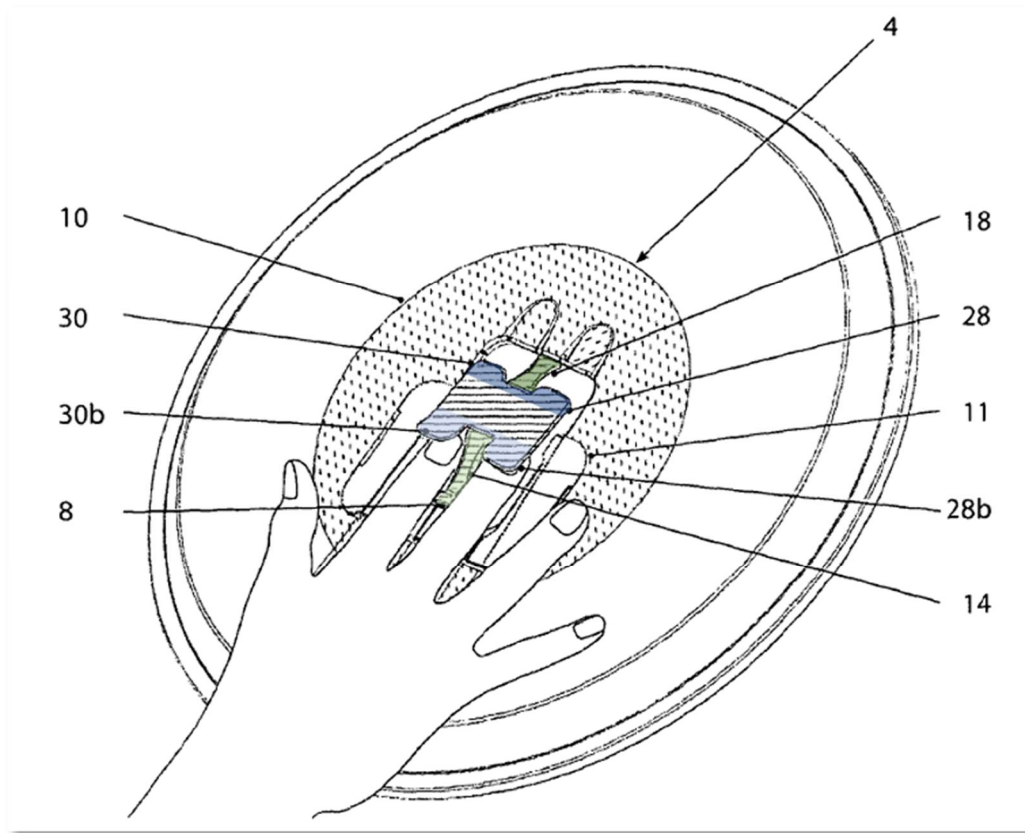
In view of the foregoing, Grieve alone or in combination with Karmatz renders Claim 1 obvious. EX1003, ¶234.

4. Claim 20

Grieve alone or in view of Karmatz discloses Claim 20. EX1003, ¶¶235-240. As explained above, there are three primary differences between Claim 1 and Claim 20: (1) the repeated limitation of Claim 1 that the claimed finger support member is “unitary;” (2) the limitations of Claim 20 that the claimed finger support member has a first and second side that are connected to the claimed first and second spacer elements respectively; and (3) the additional limitation of Claim 20 that the claimed base plate is rotatable when the finger support member is in the closed position. *See* Ground 1, Claim 20.

Regarding the requirement of Claim 1 that the finger support member be unitary, the absence of this limitation from Claim 20 means additional analysis is unnecessary as, in this respect, Claim 20 is broader than Claim 1. EX1003, ¶236.

Regarding the limitations of Claim 20 that the finger support member have a **first** (dark blue, below) and **second side** (light blue), and that it is these sides that are attached to the **first** (dark green) and **second spacer elements** (light green), Grieve discloses this arrangement as illustrated in Figure 3:



EX1004, Fig. 23 (annotated); EX1003, ¶237.

Regarding the additional limitation of Claim 20 requiring that the base plate be rotatable when the finger support member is in the closed position (*see* Section V), Karmatz teaches this limitation as discussed above. *See* Ground 1, Claim 20; EX1003, ¶¶238-239. Karmatz discloses this arrangement for the same reasons as discussed for Ground 1, Claim Limitation 1a. *See* Section VIII.A.2.b); EX1003, ¶118; EX1004, at [0035] (“the grip device may rotate ... with respect to the handheld device 140.”). Karmatz discloses that the “grip device may rotate” without regard for whether it was in an open or closed position, disclosing that it rotates without

regard for whether the grip is open or closed. *Id.*; EX1003, ¶¶118-119, 239. The grip would necessarily also be rotatable in the closed position if it was rotatable in any position, and is at least inherently disclosed. EX1003, ¶¶119-120, 239.

Further, it would have been obvious for a POSITA to improve Grieve in order with additional teachings from Karmatz regarding rotatability to satisfy this limitation. EX1004, [0052]; EX1003, ¶¶121-122, 217-222. This modification would be motivated for multiple reasons, most notably the reasons stated above for Claim Limitation 1a based on Karmatz's teachings and market trends, including the known use of tablets in both portrait and landscape mode. EX1003, ¶¶44(d), 67(b), 238. These market trends and the resulting design pressure would have motivated a POSITA to modify or combine Grieve in order to ensure the stabilising device could be used in the orientations expected by consumers without requiring repositioning or a risk of dropping. EX1003, ¶67(b). As discussed at Ground 1, Claim 20, neither Karmatz nor Grieve disclose any structures that would inhibit rotation when closed or suggest a reason to prevent such rotation, and lack any teaching that the base would rotate only when open. EX1003, ¶¶118, 122, 239-240. Thus, as Grieve alone or in view of Karmatz teaches rotatability of base plate relative to the portable computing device, this additional limitation is disclosed.

5. Claim 3

3. A stabilising device according to claim 1, wherein the base plate is housed in a casing configured to be mounted on the portable computing device.

Grieve alone or in view of Karmatz renders Claim 3 obvious. EX1003, ¶¶241-244.

Including the grip arrangement disclosed in Grieve in a protective casing would have been an obvious modification for a POSITA, motivated by multiple factors, including POSITA's familiarity with the market trend for installing tablets in cases, leaving this variation predictable to a POSITA and driven by design pressure. EX1003, ¶242.

Alternatively, modifying Grieve based on Karmatz to house the grip in a casing would have improved the usefulness of Grieve. As explained above, Karmatz teaches the limitations of Claim 3. *See* Ground 1, Claim 3. A POSITA, modifying Grieve for use as a stabilising device of a portable computing device, would have found housing the base plate (10) in a casing configured to be mounted on the portable computing device as taught by Karmatz to be obvious to try and, using standard techniques, would have predicted and achieved expected results. EX1003, ¶243.

6. Claim 4

4. The stabilising device according to claim 3, wherein the base plate is rotatable relative to the casing.

Grieve alone or in view of Karmatz renders Claim 4 obvious. EX1003, ¶¶245-248.

As explained, Karmatz teaches the limitations of Claim 4. *See supra* Ground 1, Claim 4; EX1003, ¶246. A POSITA, modifying Grieve for use as a stabilising device of a portable computing device, would have found housing the base plate (10) in a casing configured to be mounted on the portable computing device and making the base plate rotatable relative to the casing, including as taught by Karmatz, to be obvious to try. The modification of Grieve or combination of Grieve with Karmatz would be motivated for multiple reasons, including, for example, as a use of standard techniques, where a POSITA would have predicted and achieved expected results. EX1003, ¶¶246-247.

7. Claims 5 and 6

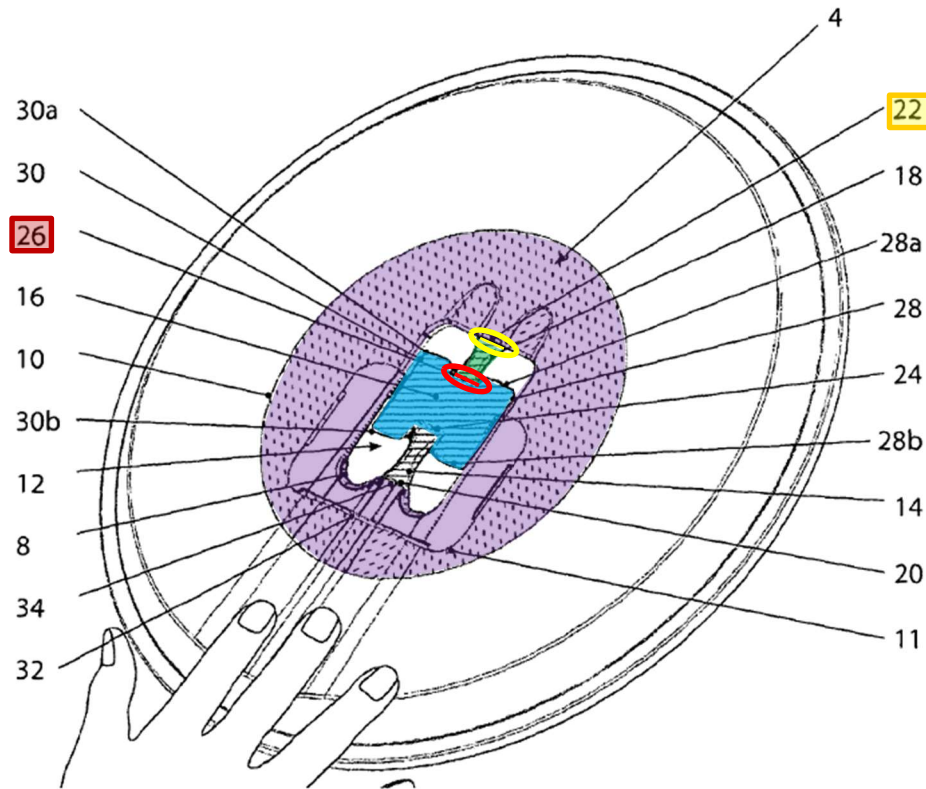
5. The stabilising device according to claim 1, wherein the first spacer element is connected to the base plate by means of a pivotal connection.

6. The stabilising device according to claim 1, wherein the first spacer element is connected to the unitary finger support member by means of a pivotal connection.

Grieve alone or in view of Karmatz renders Claims 5 and 6 obvious. EX1003, ¶¶249-252.

Grieve teaches that a first spacer element (**second spacer element** 18) “is pivotally connected to a **base member** 10 at **pivot point** (yellow) 22” and “between

the central portion 16 of finger support member 12 and second spacer element 18”
at **pivot point** 26. EX1005, 7:34-36, 13:22-23, 13:36-14:2; EX1003, ¶250.



EX1005, Fig. 2 (annotated); EX1003, ¶250.

Alternatively, Grieve alone or in view of Karmatz renders these claims obvious, through the incorporation of a pivotal connection in between the disclosed grip and extension (Claim 5), or base and extension (Claim 6). EX1003, ¶251. Any such modification or combination would have been obvious for multiple reasons because it would reflect the simple incorporation of known elements to a similar

structure with predictable results and expected success, and would be entirely within the skill of a POSITA. EX1003, ¶¶251-252.

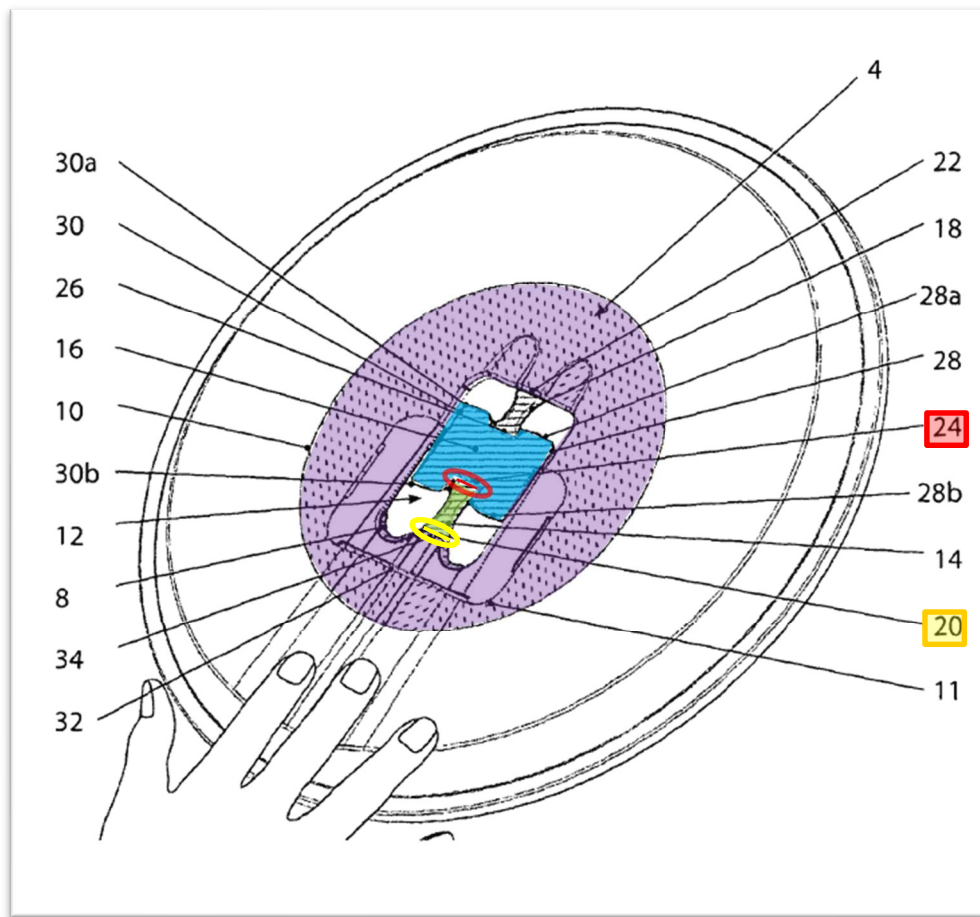
8. Claims 7 and 8

7. The stabilising device according to claim 1, wherein the second spacer element is connected to the unitary finger support member by means of a pivotal connection.

8. The stabilising device according to claim 1, wherein the second spacer element is connected to the base plate by means of a pivotal connection.

Grieve in view of Karmatz renders Claims 7 and 8 obvious. EX1003, ¶¶253-255.

Grieve teaches that a **second spacer element** (first spacer element 14) is pivotably connected to a **finger support member** 12 at **pivot** 24 and to **base** 110 at **pivot** (yellow) 20. EX1005, 13:22-23; EX1003, ¶253.



EX1005, Fig. 2 (annotated), 13:34-35 (“A further pivot 24 ... is provided between spacer element 14 and a central portion 16 of the finger support member 12.”), 6:25-26, 6:28-29 (“The at least one spacer element may be connected to the underside of the tray by means of a ... pivotal connection.”); EX1003, ¶¶253-254.

Alternatively, Grieve alone or in view of Karmatz renders these claims obvious, through the incorporation of a pivotal connection in between the disclosed grip and second extension (Claim 5), or base and second extension (Claim 6). EX1003, ¶254. Any such modification or combination would have been obvious for

multiple reasons because, for example, it would reflect the simple incorporation of known elements to a similar structure with predictable results and expected success, and would be entirely within the skill of a POSITA. EX1003, ¶¶253-255.

9. Claim 12

12. The stabilising device according to claim 1, wherein at least one of the first spacer element and the second spacer element is/are connected to a central portion of the unitary finger support member.

Grieve alone or in view of Karmatz renders Claim 12 obvious. EX1003, ¶¶256-260.

Grieve teaches that the claimed “stabilising device” (4) has one the first or second spacer elements (14, 18) are connected to a central portion of a unitary finger support member (12). EX1005, 13:34-35 (“A further pivot 24, in the form of a fold, notch or groove in the material is provided between spacer element 14 and a ***central portion*** 16 of finger support member 12.”); EX1003, ¶257.

Further, this claim is rendered obvious by Grieve in view of Karmatz. EX1003, ¶¶258-259; Ground 2, Claim 1, above. It would be obvious for a POSITA to apply the same modifications to arrive at the stabilising device of Claim 12, or to modify Grieve in view of Karmatz. EX1003, ¶¶258-259. The modification of Grieve in view of Karmatz, to implement the claimed connection to a central portion of the unitary finger support member, would be obvious in view of the similarity of the structures and reflect mere incorporation of known elements to a device with

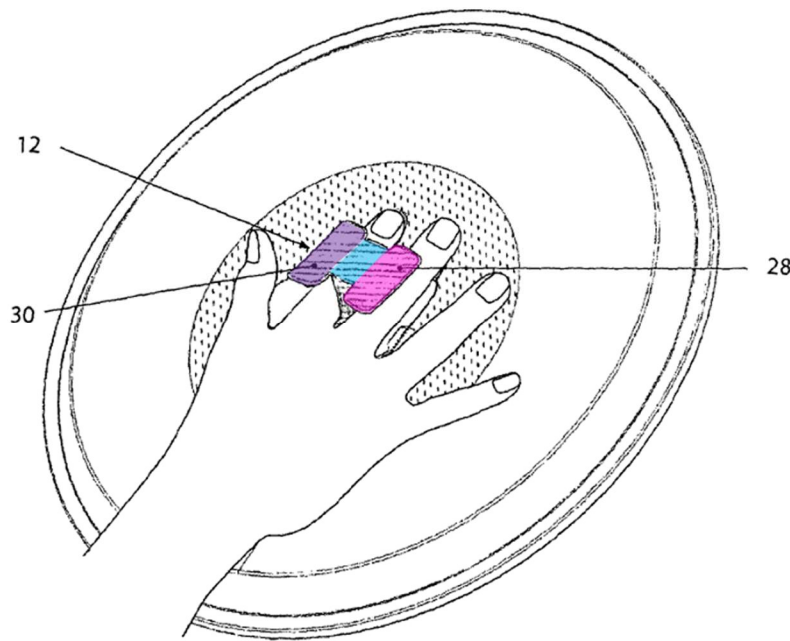
predictable results (e.g., improving stability of the grip by evenly applying forces to the center of the grip). EX1003, ¶259.

10. Claim 13

13. The stabilising device according to claim 1, wherein the unitary finger support member comprises first and second ends extending from opposite sides of a central portion thereof.

Grieve alone or in view of Karmatz renders Claim 13 obvious. EX1003, ¶¶261-265.

Grieve teaches a unitary finger support member (12) that comprises first and second ends extending from opposite sides of central portion thereof. EX1005, 14:4-5 (“Finger support member shown generally at 12 comprises first and second ends 28, 30 extending from opposite sides of a central portion 16 of finger support member 12.”); EX1003, ¶262. This arrangement, with **first end** 28, **second end** 30, and the **central portion** of finger support unit 12, is depicted in Grieve’s Figure 5:



EX1005, Fig. 5 (annotated); EX1003, ¶262.

Further, this claim is rendered obvious by Grieve in view of Karmatz, including to implement Karmatz's extension of the first and second ends of the central portion of the grip 130 for a portable computing device. EX1003, ¶¶263-264; Ground 2, Claim 1, above. The modification or combination would be obvious for multiple reasons, for example, as the incorporation of a known element (extended portions) to a device (Grieve's stabilising device) with predictable results and expected success, and in further view of the simplicity of the structures. EX1003, ¶¶264-265.

11. Claim 14

14. The stabilising device according to claim 13, wherein the unitary finger support member comprises guide means at an edge of the unitary finger support member.

Grieve alone or in view of Karmatz renders Claim 14 obvious. EX1003, ¶¶266-270.

Grieve explicitly discloses that its unitary finger support member (12) includes guide means. EX1005, 19:20-21 (“The tray according to any one of the preceding claims, wherein the finger support member comprises *guide means at an edge of the [unitary] finger support member.*”; *id.*, 14:5-17; EX1003, ¶267. This claim is rendered obvious by Grieve in view of Karmatz, including to implement guide means at the edge of grip 130 for a portable computing device. EX1003, ¶¶267-268; Ground 2, Claim 1, above; Ground 1, Claim 14, above. The modification or combination would be obvious for multiple reasons, for example, as the incorporation of a known element (guide means) to a device (Grieve’s stabilising device) with predictable results and expected success, and in further view of the simplicity of the structures and the ergonomic and stability concerns advanced by both Grieve and Karmatz. EX1003, ¶¶268-270.

12. Claim 15

15. The stabilising device according to claim 14, wherein the guide means comprise at least one arcuate element arcing in a direction away from the base plate.

Grieve alone or in view of Karmatz renders Claim 15 obvious. EX1003, ¶¶271-275.

Grieve discloses that its unitary finger support member (12) includes guide means comprising arcuate elements arcing in a direction away from Grieve's base plate (10). EX1005, 14:7-9 ("Guide means 28a, 28b, 30a and 30b are in the *form of arcuate elements* extending from first and second ends 28, 30, *arcving in a direction away* from the underside of the tray."), 8:21-22, 14:16-17; EX1003, ¶272.

13. Claim 16

16. The stabilising device according to claim 1, wherein at least the base plate, the unitary finger support member and the first spacer element are integrally formed.

Grieve alone or in view of Karmatz renders Claim 16 obvious. EX1003, ¶¶276-280.

Grieve discloses a stabilising device 4 wherein "[t]he components of the device may be integrally formed," including the base plate (base member 10), unitary finger support member (finger support member 12) and first spacer element (second spacer member 18). EX1005, 3:20; *and id.* 6:6-7 ("The base member may be integrally formed with the rest of the stabilising device."), 6:31-32 ("Advantageously, the at least one spacer element and base member are integrally formed from the same material."); EX1003, ¶¶277-279.

IX. CONCLUSION

Petitioner respectfully requests that a trial be instituted. Claims 1-20 should be cancelled as unpatentable.

Respectfully submitted,

Date: February 20, 2025

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CERTIFICATE OF WORD COUNT

Pursuant to 37 C.F.R. § 42.24, the undersigned attorney for the Petitioner, Otter Products, LLC, declares that the argument section of this Petition has 13,989 words, according to the word count tool in Microsoft Word™.

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APPENDIX A – CLAIM LISTING

U.S. Patent No. 10,113,691

Claim or Element #	Claim Language
<i>Claim 1</i>	
1p	1. A stabilising device for a portable computing device, the stabilising device comprising:
1a	a base plate configured to be mounted on the portable computing device and rotatable relative to the portable computing device;
1b	a unitary finger support member;
1c	a first spacer element connected to the unitary finger support member and to the base plate; and
1d	a second spacer element connected to the unitary finger support member and to the base plate;
1e	wherein, the unitary finger support member is moveable between a closed position in which the unitary finger support member is substantially flush with the base plate and
1f	an open position in which the unitary finger support member is spaced from the base plate such that a user can insert at least one unitary finger between the base plate and the unitary finger support member.
<i>Claim 2</i>	2. A stabilising device according to claim 1, wherein the base plate is releasably mounted onto the rear face of the portable computing

	device.
Claim 3	3. A stabilising device according to claim 1, wherein the base plate is housed in a casing configured to be mounted on the portable computing device.
Claim 4	4. The stabilising device according to claim 3, wherein the base plate is rotatable relative to the casing.
Claim 5	5. The stabilising device according to claim 1, wherein the first spacer element is connected to the base plate by means of a pivotal connection.
Claim 6	6. The stabilising device according to claim 1, wherein the first spacer element is connected to the unitary finger support member by means of a pivotal connection.
Claim 7	7. The stabilising device according to claim 1, wherein the second spacer element is connected to the unitary finger support member by means of a pivotal connection.
Claim 8	8. The stabilising device according to claim 1, wherein the second spacer element is connected to the base plate by means of a pivotal connection.

<i>Claim 9</i>	9. The stabilising device according to claim 8, wherein the pivotal connection is provided between the second spacer element and a slidable element in communication with the base plate, the slidable element being slidable such that the unitary finger support member can move between the closed position and the open position.
<i>Claim 10</i>	10. The stabilising device according to claim 9, wherein the slidable element is housed in a recess in the base plate.
<i>Claim 11</i>	11. The stabilising device according to claim 10, wherein the recess defines a channel in which slidable element can move.
<i>Claim 12</i>	12. The stabilising device according to claim 1, wherein at least one of the first spacer element and the second spacer element is/are connected to a central portion of the unitary finger support member
<i>Claim 13</i>	13. The stabilising device according to claim 1, wherein the unitary finger support member comprises first and second ends extending from opposite sides of a central portion thereof.
<i>Claim 14</i>	14. The stabilising device according to claim 13, wherein the unitary finger support member comprises guide means at an edge of the unitary finger support member.
<i>Claim 15</i>	15. The stabilising device according to claim 14, wherein the guide

	means comprise at least one arcuate element arcing in a direction away from the base plate.
Claim 16	16. The stabilising device according to claim 1, wherein at least the base plate, the unitary finger support member and the first spacer element are integrally formed.
Claim 17	17. The stabilising device according to claim 1, wherein the base plate comprises one or more channels for guiding a user's fingers toward the unitary finger support member and the first spacer element.
Claim 18	18. The stabilising device according to claim 1, wherein the stabilising device further comprises a retaining element to secure the unitary finger support member in the closed position when not in use.
Claim 19	19. The stabilising device according to claim 1, wherein at least one of the base plate, the unitary finger support member and/or the first spacer element is configured to be releasably secured to a display bracket.
Claim 20	
20p	20. A stabilising device for a portable computing device, the

	stabilising device comprising:
20a	a base plate configured to be mounted on the portable computing device and rotatable relative to the portable computing device;
20b	a finger support member having a first side and a second side;
20c	a first spacer element connected to the first side of the finger support member and to the base plate; and
20d	a second spacer element connected to the second side of the finger support member and to the base plate;
20e	wherein, the finger support member is moveable between a closed position in which the finger support member is substantially flush with the base plate and an open position in which the finger support member is spaced from the base plate such that a user can insert at least one finger between the base plate and the finger support member; and
20f	wherein the base plate is rotatable when the finger support member is in the closed position.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF SERVICE

The undersigned certifies, in accordance with 37 C.F.R. §§ 42.105 and 42.6, that service was made on the Patent Owner as detailed below.

Date of service February 20, 2025

Manner of service Electronic Mail and UPS Mail Service

Documents served Petition for *Inter Partes* Review, including Exhibits and Power of Attorney

Served upon:

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