Atty. Dock. No. 105432.017300

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Choon's Design Inc. :
:
Patent No.: 8,684,420 :
:
Issued: April 1, 2014 :
:
For: Brunnian Link Making Device and Kit :
X

Case No. TO BE ASSIGNED

I hereby certify that this correspondence is being transmitted via the U.S. Patent and Trademark Office electronic filing system (PRPS) to the USPTO on August 5, 2014.
/John K. Kim/

MAIL STOP PATENT BOARD
Patent Trial and Appeal Board
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

PETITION FOR POST-GRANT REVIEW OF U.S. PATENT NO. 8,684,420

Sir:

Pursuant to 35 USC §321 et seq. and 37 CFR §42.1 et seq., LaRose Industries, LLC ("Petitioner") hereby petitions for a post-grant review of U.S. Patent No. 8,684,420 B2 ("the '420 Pat.") owned by Choon's Design Inc. (the "Patent Owner"). Petitioner respectfully submits that Claims 1-7 and 9-16 of this patent are unpatentable under 35 USC §§102, 103 and 112. The grounds set forth in this Petition demonstrate that it is more likely than not that at least one of the claims is unpatentable. Accordingly, it is respectfully requested that the Board institute a post-grant review of the '420 Pat. pursuant to 37 CFR §42.208.

TABLE OF CONTENTS

Page(s)

I. Introduction……...1

II. Mandatory Notices Under 37 CFR §42.8……1

A. Real party-in-interest under 37 CFR §42.86(b)(1)……1
B. Related matters under 37 CFR §42.8(b)(2)……1
C. Lead/Back-up Counsel under 37 CFR §42.8(b)(3)……2
D. Service Information under 37 CFR §42.8(b)(4)……2

III. Post-Grant Review Under 37 CFR §§42.201-203……2

IV. Petition Requirements Under 37 CFR §42.204……2

A. Standing under 37 CFR 42.204(a)…….....2
B. Claims Challenged, 37 CFR §42.204(b)(1)……3
C. Specific Statutory Grounds: 37 CFR §42.204(b)(2)……...3
D. Claim Construction Under 37 CFR §42.204(b)(3)……3
E. Invalidity under 37 CFR §42.204(b)(4)-(5)……3

V. Background Information On Patent Owner's Patent Activities……...……4

VI. Subject Matter Disclosed in the '420 Pat……..6

VII. Independent Claims of the '420 Pat……..7

VIII. Claim Construction Under 37 CFR §42.204(b)(3)……9

A. The Preambles of Independent Claims 1, 6 and 16……9
B. "supported on" in Claims 1 and 14-16……..10
C. "extending . . . from"/"extending from" in Claims 1, 2, 6 and 9……18
D. "rows of offset pins" in Claims 1 and 6……21
E. "flared portion" in Claims 3, 4, 11 and 12……22

IX. The '420 Pat. Qualifies for Post-Grant Review……...…23

A. The '638 App. Does Not Disclose "pins supported on the base".....24
B. The '638 App. Does Not disclose "pins extending upward from The base"……...……33
C. Claims 1, 6, 10 & 16: "an opening on at least one side"..…….34
D. Claims 7 and 15: "manipulating a link"……35
E. The New Features in the '402 Pat. Not Entitled to '399 Prov. App……36
F. No Incorporation-by-Reference in the '638, '717 & '558 Apps……...37
G. Designation as Continuation Does Not Save the '420 Pat…….37
H. Examination under Pre-AIA Patent Law Is Non-Binding…….38

X. The Patent Owner Is Estopped From Arguing Patentability……39

XI. Unpatentability Of Claims 1-7 and 9-16 Under AIA §112……..45

A. The Challenged Claims Are Not Supported by Written Specification……45
B. The Challenged Claims Are Indefinite……...……46
C. The Challenged Claims Are Non-Enabled……..48

XII. Unpatentability of Claims 1-7 and 9-16 Under AIA §§102 and/or 103……49

A. Claims 1-7 and 9-16 Are Obvious Over Ng In View of Gustin/La Croix……49
B. Claims 1-7 and 9-16 Are Anticipated by Zenacon's Fun Loom Product……50
C. Claims 1-7 and 9-16 Are Unpatentable Based On Gustin……..56

1. Claims 1-3, 5-7, 9-11, 13 and 16 Are Anticipated by Gustin……59
2. Claims 14 and 15 Are Obvious Over Gustin In View of Ng……...61
3. Claims 4 and 12 Are Obvious Over Gustin In View of Pugh or Ng…….....63

D. Claims 1-7 and 9-16 Are Anticipated By Macbain…….64

1. Claims 1-7 and 9-16 Anticipated By Macbain……69

E. Claims 1-7 and 9-16 Are Unpatentable Over La Croix……75

1. Claims 1-3, 6, 7 and 9-11 Are Anticipated by La Croix……..…76
2. Claims 4 and 12 Are Obvious Over La Croix In View of Hobson……77
3. Claims 14 and 15 Are Obvious Over La Croix In View of Ng……78
4. Claims 5, 13 and 16 Are Obvious Over La Croix In View of Ng……80

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In re Cortright,
165 F.3d 1353 (Fed. Cir. 1999) 9

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474 F.2d 671 (CCPA 1973).....37

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CIV. A. 00-40188-NMG, 2003 WL 25782750 (D. Mass. Sept. 12, 2003) 15

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265 F.3d 1311 (Fed. Cir. 2001) 16

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107 F.3d 1565 (Fed. Cir. 1997) 36, 38

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89 U.S.P.Q.2d 1207 (BPAI 2008) 46

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No. 13-369, 2014 WL 2440536 (U.S. June 2, 2014).....22, 46

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182 F.3d 1298 (Fed. Cir. 1999) 10

In re Translogic Tech, Inc.
504 F.3d 1249 (Fed. Cir. 2007) 9

Vas-Cath, Inc. v. Mahurkar,
935 F.2d 1555 (Fed. Cir. 1991) 45

In re Wright,
999 F.2d 1557 (Fed. Cir. 1993) 48

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35 U.S.C. § 112 .....*passim*

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35 U.S.C. § 120 36

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37 CFR 1.55 38

37 CFR 1.78 38

37 CFR §42.1 et seq. .....*passim*

37 CFR §42.200 et. seq. .....*passim*

MPEP §2111 9

PETITIONER'S EXHIBIT LIST

Ex. 1001 U.S. Patent No. Patent No. 8,684,420 B2 to Ng ("the '420 Pat.").

Ex. 1002 Amended Complaint in *Choon's Design LLC v. LaRose Industries, LLC et al.*, Civil Action No. 4:13-cv-13569-TGB-MKM.

Ex. 1003 Final Written Decision issued in Case No. IPR 2014-00218.

Ex. 1004 U.S. Patent No. 8,485,565 to Ng ("the '565 Pat.").

Ex. 1005 USPTO File Wrapper for U.S. Application No. 13/227,638 filed September 8, 2011 (now the '565 Pat.).

Ex. 1006 Declaration of Steve Verona (Zenacon).

Ex. 1007 USPTO File Wrapper for U.S. Appln. No. 13/938,717 filed July 10, 2013.

Ex. 1008 USPTO File Wrapper for U.S. Appln. No. 13/951,558 filed July 26, 2013.

Ex. 1009 Amended Complaint in *Choon's Design Inc. v. Zenacon, LLC et al.,* Civil Action No. 2:13-cv-13568-PJD-RSW.

Ex. 1010 Decision to Institute issued in Case No. IPR 2014-00218.

Ex. 1011 U.S. Patent No. 2,457,064 to Parisi ("Parisi").

Ex. 1012 THE AMERICAN HERITAGE COLLEGE DICTIONARY, Second Edition (1982), pgs. 500, 510, 536, 864, 867.

Ex. 1013 Declaration of David Brookstein, Sc.D.

Ex. 1014 USPTO File Wrapper for U.S. Provisional Application No. 61/410,399 filed November 5, 2010.

Ex. 1015 U.S. Patent No. 1,776,561 to La Croix ("La Croix").

Ex. 1016 U.S. Patent Application Publication No. 2012/0112457 to Ng ("Ng").

Ex. 1017 U.S. Patent No. 7,506,524 to Gustin ("Gustin").

Ex. 1018 U.K. Patent Application Publication No. 2 147 918 A to Pugh ("Pugh").

Ex. 1019 U.S. Patent No. 5,231,742 to Macbain ("Macbain").

Ex. 1020 U.S. Patent No. 4,037,513 to Hobson ("Hobson").

Ex. 1021 Copy of the originally filed application corresponding to U.S. Patent No. 8,485,565.

Ex. 1022 U.S. Patent No. 5,426,788 to Meltzer ("Meltzer").

Ex. 1023 U.S. Patent No. 8,418,434 to Carruth ("Carruth").

Ex. 1024 U.S. Patent No. 5,377,595 to Lu ("Lu").

Ex. 1025 U.S. Patent No. 3,054,214 to Smith ("Smith").

Ex. 1026 U.S. Patent No. 4,680,021 to Maxim ("Maxim").

Ex. 1027 U.S. Patent No. 4,066,271 to Lohr ("Lohr").

Ex. 1028 U.S. Patent Publication No. 2007/0199965 to Gouldson ("Gouldson").

Ex. 1029 U.S. Patent No. 7,617,947 to Schafer ("Schafer").

Ex. 1030 U.S. Patent No. 4,018,543 to Carson ("Carson").

Ex. 1031 THE AMERICAN HERITAGE COLLEGE DICTIONARY, Second Edition (1982), pg. 763.

I. INTRODUCTION

Claims 1-7 and 9-16 of the '420 Pat. (Ex. 1001) are unpatentable under the Leahy-Smith America Invents Act ("AIA"), 35 USC §§102, 103 and 112, and should be cancelled. This Petition demonstrates that it is more likely than not that at least one of the claims of the '420 Pat. is unpatentable. 37 CFR §42.208.

II. Mandatory Notices Under 37 CFR §42.8

A. Real party-in-interest under 37 CFR §42.8(b)(1): The real parties-in-interest in this Petition are LaRose Industries, LLC ("LaRose" or "Petitioner") and Toys "R" Us-Delaware, Inc.

B. Related matters under 37 CFR §42.8(b)(2): The '420 Pat. is involved in *Choon's Design Inc. v. LaRose Industries, LLC et al.*, Civil Action No. 4:13-cv-13569-TGB-MKM. Ex. 1002. *See* also *Choon's Design Inc. v. Zenacon, LLC et al.*, Civ. Action No. 2:13-cv-13568-PJD-RSV; *Choon's Design Inc. v. Jayfinn, LLC*, Civ. Action No. 2:14-cv-11802-RHC-DRG; *Choon's Design Inc. v. Altatac, Inc.*, Civ. Action No. 2:14-cv-11442-LJM-MKM and *Choon's Design, Inc. v. My Imports USA,* Civ. Action No. 2:14-cv-12259-RHC-DRG.

Petitioner also notes that the Patent Office previously instituted an *inter partes* review, Case No. IPR 2014-00218 (the "'218 IPR"), on related U.S. Pat. No. 8,485,565 ("the '565 Pat."). The Board issued its Final Written Decision (*see* Ex. 1003) in the '218 IPR, entering adverse judgment against the Patent Owner.

C. Lead/Back-up Counsel under 37 CFR §42.8(b)(3): Petitioner appoints Ralph W. Selitto, Jr., Reg. No. 26,996, as lead counsel, and John K. Kim, Reg. No. 37,002, and Joseph Agostino, Reg. No. 51,191, as back-up counsel.

D. Service Information under 37 CFR §42.8(b)(4): Petitioner may be served electronically at njdocket@gtlaw.com, and by postal mail and hand delivery at Greenberg Traurig, LLP, Attn: Ralph W. Selitto, Jr., 200 Park Avenue, Florham Park, NJ 07932. The attorneys of record may be contacted at 973-443-3550, while their facsimile number is 973-295-1309.

III. Post-Grant Review Under 37 CFR §§42.201-203

Petitioner has not filed a civil action challenging the validity of a claim of the '420 Pat. and is not estopped from challenging the claims on the grounds identified in the Petition. *See* 37 CFR §42.201. This Petition is also filed within nine months from the April 1, 2014 issue date of the '420 Pat. (37 CFR §42.202).

The Office is authorized to charge the $30,550 fees under 37 CFR §42.15(b), or any additional fees due for this Petition, to Deposit Account No. 501561.

IV. Petition Requirements Under 37 CFR §42.204

A. Standing under 37 CFR 42.204(a)

Petitioner certifies that the patent for which review is sought is available for post-grant review. While the '420 Pat. claims priority to U.S. applications having filing dates earlier than the 3/16/13 effective date of the first-inventor-to-file ("FITF")

provisions of the AIA, for the reasons discussed below in Section IX, at least one of the claims in the '420 Pat. has an effective filing date that is on or after the 3/16/13 FITF effective date and is hence subject to the FITF provisions of the AIA. As a result, the '420 Pat. is subject to post-grant review under 37 CFR §42.200 et. seq.

Petitioner also certifies that it is not barred or estopped from requesting a post-grant review challenging the claims of the '420 Pat. on the grounds identified in this Petition. As noted above, Petitioner previously requested an *inter partes* review (i.e., the '218 IPR) of certain claims in the '565 Pat. While the Board issued its Final Written Decision entering adverse judgment against the Patent Owner on the '565 Pat. (*see* Ex. 1003), the '218 IPR did not involve the '420 Pat. or any of its claims. Petitioner, therefore, respectfully submits that it is not barred or estopped from challenging the validity of the '420 Pat. by way of this Petition.

B. <u>Claims Challenged, 37 CFR §42.204(b)(1):</u> Petitioner petitions for review of Claims 1-7 and 9-16 of the '420 Pat. ("Challenged Claims"). Claim 8 has previously been disclaimed by the Patent Owner.

C. <u>Specific Statutory Grounds: 37 CFR §42.204(b)(2):</u> Petitioner submits that the Challenged Claims are unpatentable under AIA §§ 102, 103 and 112.

D. <u>Claim Construction Under 37 CFR §42.204(b)(3):</u> Certain terms of the Challenged Claims will be construed below in Section VIII.

E. Invalidity under 37 CFR § 42.204(b)(4)-(5): Each of the Challenged Claims is unpatentable under AIA §§102, 103 and/or 112 (*see* Sections XI & XII).

V. Background Information On Patent Owner's Patent Activities

The Patent Owner has filed a lawsuit against Petitioner, alleging infringement of its '565 Pat., which issued on 7/26/13 from US App. No. 13/227,638 filed 9/8/11 ("the '638 App.") (*see* Ex. 1004 and 1005). The '565 Pat. is directed to a device for creating an item consisting of series of links, which device has a base and a ***separate*** pin bar equipped with a plurality of pins. *See* Ex. 1004 at FIGS. 5A-B. When the pin bar is assembled with the base, it is supported on the base, while the pins are supported on top of the pin bar. That is, the pins are never directly connected to the base, but are positioned only on top of the pin bar.

Consistent with the teachings of the '565 Pat., Claim 1 of this patent requires a base and a separate ***pin bar supported on*** the base. However, Petitioner's allegedly infringing product (hereinafter "Petitioner's Product") does not include, *inter alia,* any pin bar. As a result, the pins in Petitioner's Product are formed integrally with the base and do not therefore fall within the scope of the '565 Pat.

Besides the lawsuit filed against Petitioner, the Patent Owner has commenced additional patent infringement lawsuits against other competitors. For instance, in its lawsuit against Zenacon LLC et al. ("Zenacon"), the Patent Owner alleges that its '565 Pat. is infringed by Zenacon's FUNLOOM® loom kit. Ex.

1006 at 3, 30-32, 110. Like Petitioner's Product, the FUNLOOM® loom does not include any pin bar between its base and pins. *See id.* at 21-26.

Given the significant differences existing between the claims of the '565 Pat. and the allegedly infringing devices, the Patent Owner must have realized that it would have been impossible to establish infringement of such claims. As a result, the Patent Owner filed US App. No. 13/938,717 (hereinafter "the '717 App.") prior to the issuance of the '565 Pat. as a "continuation" of the '638 App. *See* Ex. 1007 at 295-324. Only a couple of weeks thereafter, the Patent Owner filed another application (i.e., US App. No. 13/951,558, hereinafter "the '558 App.") as a "continuation" of the '717 App. *See* Ex. 1008 at 309-355.

In an attempt to fix the deficiencies in the claims of the '565 Pat., the Patent Owner presented new claims in the '717 and '558 Apps. Ex. 1007 at 305-307 and Ex. 1008 at 316-318. More particularly, these new claims specifically excluded the pin bar limitation required by the '565 Pat. and called for, *inter alia*, "pins supported on the base". It is obvious that the Patent Owner intended to have the new claims read on Petitioner's and other competitors' loom products, which include pins formed integrally with the base. However, by presenting these claims in the '717 and '558 Apps., the Patent Owner has incorporated **new subject matter** which is not supported by the originally filed disclosure of the '565 Pat.

The new claims presented in the '558 App. ultimately issued as the claims of

the '420 Pat. on April 1, 2014. Ex. 1001. After the issuance of the '420 Pat., the Patent Owner amended its Complaints against Petitioner and Zenacon to add new infringement allegations based on the '420 Pat. *See* Ex. 1002 at 11-17 and Ex. 1009 at 15-20. The actions taken by the Patent Owner clearly demonstrate its intention to have the claims of the '420 Pat. read on Petitioner's and other competitors' products, all of which are devoid of a pin bar.

In the foregoing circumstances, and other reasons discussed below, at least some of the claims of the '420 Pat. are not entitled to benefit of the filing date of the '565 Pat. The earliest possible filing date that the '420 Pat. may be entitled to is the 7/10/13 filing date of the '717 App., which is after the 3/16/13 effective date of the AIA FITF provisions, thereby subjecting it to the post-grant review provisions.

VI. Subject Matter Disclosed in the '420 Pat.

With reference to FIG. 1 (reproduced herein), the '420 Pat. discloses a kit 10 for making an item consisting of a series of links. Ex. 1001 at 1:14-16, 34-35. The kit 10 includes a plurality of bases 12 and a plurality of pin bars 14 supported on one or more of the bases 12. *See*, e.g., *id.* at 2:47-48 and FIG. 1. The kit 10 also includes a hook 16. *Id.* at 2:49 and FIG. 1.

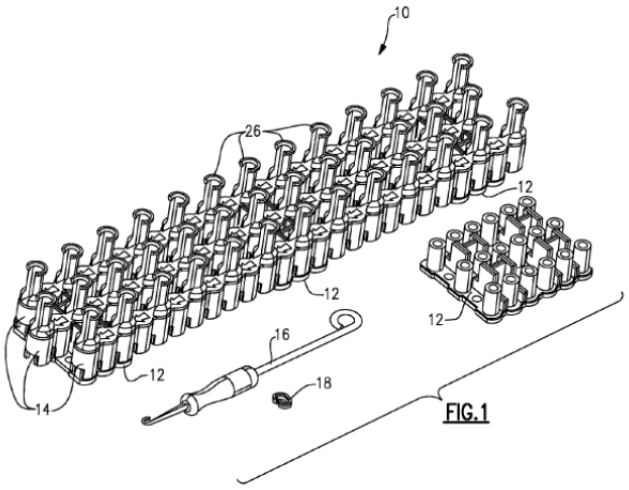
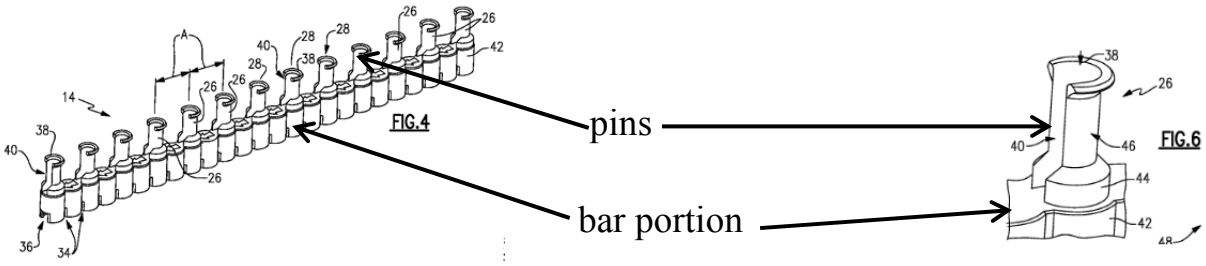
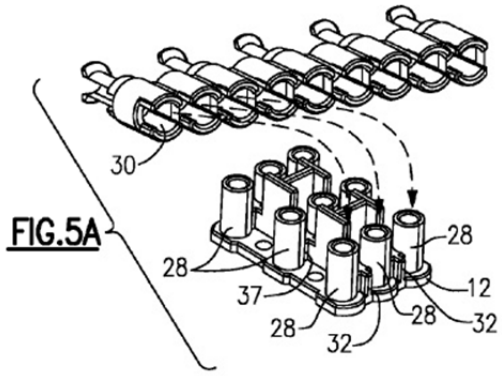


FIG.1



With reference to FIGS. 4 & 6 (see above), each pin bar 14 includes a plurality of pins 26. *Id.* at 2:48. Each pin 26, in turn, extends upward from a bar portion 42 of each pin bar 14 and is therefore supported on same. *Id.* at 3:13-15.

Now referring to FIG. 5A (reproduced herein), each of the bases 12 includes a plurality of upwardly extending cylinders 28 for insertion into openings 30 defined in the pin bars 14. As clearly described in the specification, when the pin bars 14 are assembled with one or more bases 14, the pin bars 14 are supported on the bases 12 (see *id.* at 3:7-8), while the pins 26 extend upward from the bar portions 42 of the pin bars 14 (*see id.* at 3:13-15). That is, the pins 26 themselves never come in contact with any of the bases 12. *See id.* at FIG. 5B.



Referring to FIGS. 4 and 6 above, each of the pins 26 includes a flared top 38. *See id.* at 3:15-17. Each of the pins 26 also includes a front access groove 40, as well as a bottom flared portion 44 and a mid portion 46, where a band is secured during assembly. *See id.* at 3:11-12, 26-29.

VII. Independent Claims of the '420 Pat.

The following claim chart illustrates that Claims 1 and 6 are virtually identical. Accordingly, these two claims will be analyzed together below.

1. A device for creating an item consisting of a series of links, the device comprising:	**6.** A kit for creating an item consisting of a series of links, the kit comprising:
a base; and	[recited at the end of the claim]
a plurality of pins supported on the base, wherein each of the plurality of pins includes	a plurality of pins supported relative to each other including
a top portion for holding a link in a desired orientation and	a top portion for holding a link in a desired orientation and
an opening on at least one side of each of the plurality of pins,	an opening on at least one side of each of the plurality of pins,
wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from the base.	wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from a base.

Independent Claim 14 is reproduced below in the following chart.

14. A method of assembling a kit for creating a linked item comprising the steps of: supporting a plurality of pins to define a desired spatial relationship between pins; providing an access opening on each of the plurality of pins to provide access for a hook tool to grasp a link supported on one of the plurality of pins; providing a plurality of links for assembly to the plurality of pins according to a desired pattern; and providing a plurality of connectors for holding links together once a desired pattern is completed.

As seen in the following chart, all elements of independent Claim 16 are recited in dependent Claim 5. Accordingly, a finding of unpatentability for Claim 5 will automatically result in a finding of unpatentability for Claim 16.

Dependent Claim 5	Independent Claim 16
1. A device for creating an item consisting of a series of links, the device comprising:	**16.** A device for creating an item consisting of a series of links, the device comprising:

a base; and	a base; and
a plurality of pins supported on the base,	a plurality of pins supported on the base,
wherein each of the plurality of pins includes a top portion for holding a link in a desired orientation and	wherein each of the plurality of pins includes a top portion for holding a link in a desired orientation and
an opening on at least one side of each of the plurality of pins,	an opening on at least one side of each of the plurality of pins,
wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from the base.	[not recited in Claim 16]
5. The device as recited in claim 1, wherein the base includes a mating feature for combining additional devices and additional pluralities of pins.	wherein the base includes a mating feature for combining additional devices and additional pluralities of pins.

VIII. Claim Construction Under 37 CFR §42.204(b)(3)

In a post grant review proceeding involving an unexpired patent, claims are given their broadest reasonable interpretation in light of the specification of the patent in which they appear. 37 CFR §42.200(b). The broadest reasonable interpretation of claims should be consistent with the interpretation that a person skilled in the art would reach. MPEP §2111. *See* also *In re Cortright*, 165 F.3d 1353, 1358 (Fed. Cir. 1999). There is "a 'heavy presumption' that a claim term carries its ordinary and customary meaning". *CCS Fitness, Inc. v. Brunswick Corp.,* 288 F.3d 1359, 1366 (Fed. Cir. 2002). The "ordinary and customary meaning" is that which the term would have to a person skilled in the art. *In re Translogic Tech, Inc.* 504 F.3d 1249, 1257 (Fed. Cir. 2007). Applying the standard stated above, a proposed (non-binding) interpretation for certain claim terms is provided below.

A. The Preambles of Independent Claims 1, 6 and 16

The preambles of Claims 1, 6 and 16 (i.e., "a device [or kit] for creating an item consisting of a series of links") should not be construed as a claim limitation. In the '218 IPR, the Board determined that the same preamble in Claim 1 of the '565 Pat. (i.e., "a device for creating an item consisting of a series of links") was not "a claim limitation because the body of the claim defines a complete structure and the preamble appears to recite only a purpose or intended use for the claimed invention." '218 IPR, paper 9 (s*ee* Ex. 1010 at 20). Like Claim 1 of the '565 Pat., nothing recited in the preambles of Claims 1, 6 and 16 of the '420 Pat. limits the structure of the claimed invention. In fact, all of the limitations of the claimed invention are fully and intrinsically set forth in the bodies of the '420 Pat. claims. Since the preambles of the '420 Pat. claims merely state an intended purpose or use for the claimed invention (i.e., "***for creating*** an item consisting of a series of links"), they do not constitute a claim limitation. *See Pitney Bowes, Inc. v. Hewlett-Packard Co.,* 182 F.3d 1298, 1305 (Fed. Cir. 1999).

B. <u>"supported on" in Claims 1 and 14-16</u>

Claims 1 and 16 recite "pins ***supported on*** the base", while Claims 14 and 15 recite "a link ***supported on*** one of the plurality of pins". For the reasons discussed below, it is respectfully submitted that the ordinary and customary meaning of the term "supported on" should be applied in this case. Applying its ordinary and customary meaning, the term "supported on" means "supported in

contact with a surface of".

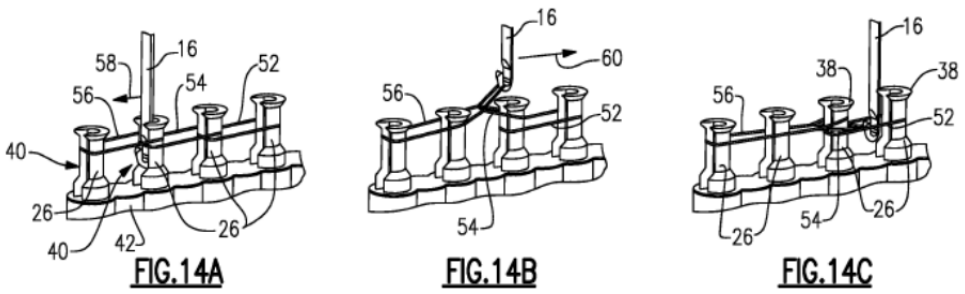
The specification of the '420 Pat. doses not assign any special meaning to the term "supported on". That is, the '420 Pat. does not indicate anywhere that the term "supported on" should be given any meaning other than its plain meaning. In fact, the plain meaning of the word "support" is used throughout the specification of the '420 Pat. The '420 Pat. discloses: The kit "includes several pin bars that are ***supported*** in a desired special orientation by at least one base" (emphasis added), Ex. 1001 at 1:39-40; "[T]hree bases 12 are utilized to ***support*** the pin bars 14 in a desired relative orientation" (emphasis added), *id.* at 2:57-58; and "Although three bases 12 are shown . . . , more or less could be utilized to ***support*** additional numbers of pin bars 14" (emphasis added), *id.* at 2:65-67.

Accordingly, it is proper to apply the ordinary/customary meaning of the term "supported on". *See*, e.g., *Chef America, Inc. v. Lamb-Weston, Inc.*, 358 F.3d. 1371 (Fed. Cir. 2004). As is well known in the art, the dictionary definition of the word "on" is "position above and **in contact with**" or "**in contact with**, regardless of position" Ex. 1012 at 7. Applying this "on" definition, the term "supported on" means "supported in contact with a surface of". This construction is consistent with the interpretation that a skilled person would reach. *See* Ex. 1013 at ¶¶26-27.

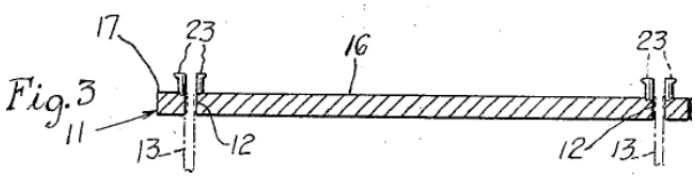
The foregoing construction of the term "supported on" is also consistent with the specification of the '420 Pat. The '420 Pat. uses an equivalent term to

describe the engagement between the pin bar and the base. *See* Ex. 1001 at 3:7-8 (stating "The front slot 34 and boss 38 interface further aligns and ***supports*** the pin bar 14 ***on*** the base 12" (emphasis added)). As described above, the pin bar is illustrated and described throughout the '420 Pat. as being supported on the base such that there is direct contact between the pin bar and the base. Accordingly, the phrase "supports . . . on" as used in the '420 Pat.'s specification aptly describes the physical contact existing between the pin bar and the base. *See* Ex. 1013 at ¶¶28-29.

With respect to links (*see* FIGS. 14A-C, reproduced below), the '420 Pat. describes that bands are loaded onto adjacent pins. Ex. 1001 at 4:3-5 and FIG. 14A. Once the bands are "placed on each of the pins" (*see id.* at 4:17-18), a hook is used in the manner described in 4:18-30 and FIGS. 14B-C of the '420 Pat. to form Brunnian links, which is positioned on and in contact with the pins. That is, the link is supported on the pins such that it is in contact with the pins. Accordingly, the proposed construction of the term "supported on" in Claims 14 and 15 is consistent with the arrangement between the link and the pins as described in the specification and FIGS. 14A-C of the '420 Pat. *See* Ex. 1013 at ¶30. The prosecution history of the '420 Pat. further supports the proposed



construction of the term "supported on". More particularly, original Claim 1 of the '558 App. (now the '420 Pat.), which contained the same term "pins supported on the base", was rejected by the Examiner as being anticipated by U.S. Patent No. 2,457,064 to Parisi ("Parisi", Ex. 1011). As illustrated in FIGS. 1 and 3 of Parisi (FIG. 3 reproduced herein), the Examiner concluded that "Parisi teaches a kit having a device (Figures 1, 3) comprising a base (16) and a plurality of ***pins … support [sic] on the base***" (emphasis added). Ex. 1008 at 253.



FIGS. 1 and 3 of Parisi clearly illustrate that the pins (*see* element 23 in FIG. 3) are supported **on** and **in contact with** the base 16. Accordingly, it is obvious that the Examiner applied the plain meaning of the term "supported on" in rejecting original Claim 1 of the '558 App. based on Parisi. In response, original Claim 1 was otherwise amended by the Patent Owner and subsequently issued as Claim 1 of the '420 Pat. In such circumstances, the meaning of the term "supported on" as construed by the Examiner during the prosecution of the '420 Pat. is consistent with the claim construction proposed by Petitioner herein.

Claim 1 of the '565 Pat. also recites "at least one pin bar ***supported on*** the base" (emphasis added). More particularly, the device disclosed in the '565 Pat. includes a pin bar that is mounted on the base such that it is in contact with the base. *See*, e.g., Ex. 1004 at 1:35-36. The '565 Pat. does not disclose or suggest any

additional element that may be positioned between the base and the pin bar. Accordingly, the use of the term "supported ***on***" in Claim 1 of the '565 Pat. makes it clear that the patentee intended to apply the plain meaning of the term "supported on" (i.e., "supported in contact with a surface of") for the claim language "pin bar supported on the base" in Claim 1 of the '565 Pat.

As discussed above, while the Patent Owner has asserted the '565 Pat. against Petitioner and other competitors, Petitioner's and the other competitors' products do not include any pin bar, thereby falling outside the scope of the '565 Pat. Instead, such products are equipped with pins formed monolithically with a base and therefore supported on the base without the use of any pin bar. Realizing this deficiency in the claims of the '565 Pat., the Patent Owner filed the '558 App. (which ultimately issued as the '420 Pat.) for the purpose of securing allowance of claims that it believed read on its competitors' products. The Patent Owner did so by merely replacing "pin bar" with "pins" in the claim language "pin bar supported on the base" of Claim 1 in the '565 Pat. The Patent Owner intentionally chose to keep the same term "supported on the base" from the claims of the '565 Pat. in the claims of the '558 App. This conscious choice by the Patent Owner clearly demonstrates its intention to rely on the plain meaning of the claim term "supported on the base" as used in the '565 Pat.

In his Declaration (Ex. 1013), Dr. David Brookstein states that he has

reviewed the prior art and has determined that the construction proposed above is consistent with how the term "supported on" is used in the art. *See* Ex. 1013 at ¶¶31-35. Based on his review of the '420 Pat. and the dictionary definition, Dr. Brookstein is also of the opinion that the proposed construction would be consistent with the meaning that a skilled person would reach. *See* Ex. 1013 at ¶36.

To oppose the granting of this Petition, the Patent Owner might argue that adopting the plain meaning of the term "supported on" for the phrase "pins supported on the base" in Claims 1 and 16 would cause them to be inconsistent with the disclosure of the '420 Pat. More particularly, the Patent Owner might argue that the specification of the '420 Pat. discloses pins that are indirectly supported on the base by way of a pin bar. Accordingly, the Patent owner might argue that the term "supported on" means "supported directly or indirectly on". For the reasons discussed below, any such claim construction should be rejected.

As discussed above, the Patent Owner used the same term (i.e., "supported on") in Claim 1 of the '565 Pat. (i.e., the parent of the '420 Pat.) to mean that the pin bar is supported in contact with the base. When a claim term is used by different claims within a related family (e.g., parent/continuation, divisional or continuation-in-part), it must be construed consistently throughout such claims. *See EMC Corp. v. Hewlett-Packard Co., Inc.*, CIV. A. 00-40188-NMG, 2003 WL 25782750 at *4 (D. Mass. Sept. 12, 2003) (finding that claim terms in a child

application which are the same as claim terms in a parent application are interpreted consistently). In this case, since the Patent Owner filed the '558 App. (now the '420 Pat.) as a "continuation" of the '717 App., which is a "continuation" of the '638 App. (now the '565 Pat.), the written description of the '565 Pat. is identical to that of the '420 Pat. Thus, the written description of the respective patents does not suggest that different meanings are intended. Nothing in the prosecution histories of the '565 and '420 Pats. indicates that the Patent Owner intended different meanings from patent to patent. In the foregoing circumstances, the Board should construe the term "supported on" consistently between the '565 Pat. and the '420 Pat. and adopt the construction proposed by Petitioner.

The claim term "supported on" is also used in Claims 14 and 15 to describe a link supported on one of the pins. When a term is used in different claims within the same patent, it should be construed consistently throughout the claims. *See Fin Control System Pty, Ltd. v. OAM, Inc.,* 265 F.3d 1311, 1318 (Fed. Cir. 2001) (describing that the same claim terms should be given a consistent meaning throughout the claims, unless it is clear from the specification and prosecution history that different meanings were intended). As discussed above, the specification of the '420 Patent clearly shows that the link is supported on the pins such that the link is in direct contact with the pins. The invention of Claims 14 and 15 would be inoperable unless the link forms direct contact with the pins.

Accordingly, any alternate construction of the term "supported on" would be contrary to the written description of the '420 Pat.

The Court of Appeals for the Federal Circuit "repeatedly and consistently has recognized that courts may not redraft claims, whether to make them operable or to sustain their validity." *Chef America*, 358 F.3d at 1374. Even "a nonsensical result does not require the court to redraft the claims of [a] patent.'" *Id*. at 1374. Indeed, where "claims are susceptible to only one reasonable interpretation and that interpretation results in a nonsensical construction of the claim as a whole, the claim must be invalidated." *Id*. at 1374 (quoting *Process Control Corp. v. Hydreclaim Corp.*, 190 F.3d 1350, 1357 (Fed. Cir. 1999)).

In *Chef America*, the court was faced with a claim that recited "heating the [dough] ***to*** a temperature in the range of about 400°F. to 850°F." (emphasis added) *Chef America*, 358 F.3d at 1372. The patentee argued that the term "to" should be interpreted consistent with the specification to mean "at" the specified temperature range because the specification disclosed that the dough is placed in an oven and baked "***at*** [the specified] temperatures". *Id*. at 1373-74. The court rejected the patentee's arguments and construed the limitation according to its plain meaning, that is, heating the dough **to** the specified temperature range, despite its acknowledgment that the court's construction would lead to a claim to a "charcoal briquette" (i.e., a nonsensical result). *Id*. In doing so, the court held that it must

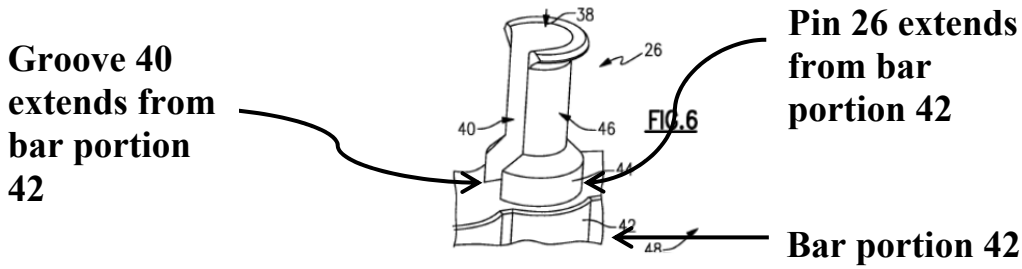
construe an unambiguous claim term according to its usual and customary meaning even if that would lead to a nonsensical result. *Id*. at 1374.

Like in the *Chef America* case, the term "supported on" in this case is clear and not ambiguous and is capable of only one reasonable interpretation. Ex. 1013 at 26. Accordingly, even if the construction of the claim term "pins supported on the base" proposed by Petitioner might lead to a result that is inconsistent with the specification of the '420 Pat., the Board should follow the *Chef America* case by refusing to rewrite Claims 1 and 16 of the '420 Pat. Applying the plain meaning of "supported on", as discussed above, the term "pins supported on the base" in Claims 1 and 16 should be construed to require that the pins be supported in contact with a surface of the base. *See Id*. at ¶37.

C. "extending . . . from"/"extending from" in Claims 1, 2, 6 and 9

Claims 1 and 6 recite "offset pins…***extending*** upward ***from*** the base" (or "a base"), respectively, while Claims 2 and 9 recite "a slot ***extending from*** the top portion". The '420 Pat. specification does not assign any special meaning to the term "extending from". That is, the '420 Pat. does not indicate anywhere that the term "extending from" should be given any meaning other than its ordinary and customary meaning. Accordingly, the ordinary/customary meaning of the term "extending from" should be applied. Ex. 1013 at ¶38. American Heritage College Dictionary, Second Edition (1982) defines the term "from" as "used to indicate a

specified place or time as a starting point". *See* Ex. 1012 at 5. Accordingly, a skilled person would understand the term "extending from" to mean "extending from a specified location and starting its extension therefrom". *Id.* at ¶39.



The application of the plain meaning of the term "extending from" in this case is consistent with the specification of the '420 Pat. The term "extending from" appears twice in the specification of the '420 Pat., namely: "each pin 26 ***extends*** upward ***from*** a bar portion 42" (emphasis added) (Ex. 1001 at 3:13-14); and "The access groove 40 ***extends from*** the bar portion 42" (emphasis added) *(id*. at 3:20-21). As discussed above, the specification and drawings (*see,* e.g., annotated FIG. 6 above) of the '420 Pat. clearly disclose that each of the pins 26 is mounted directly on the bar portion 42 such that the bar portion 42 is the starting point of the upward extension of each of the pins 26. Similarly, the access groove 40 of each of the pins 26 starts its upward extension from the bar portion 42 (*see* above). Accordingly, both appearances of the term "extending from" in the specification of the '420 Pat. use the term's plain meaning when describing the extension of the pins and the groove from the bar portion. Ex. 1013 at ¶40-41.

The use of the term "extending from" in the specification of the '420 Pat. demonstrates that the Patent Owner intended to apply its usual and customary meaning in describing the structural relationships between the pins and the bar portion and between the groove and the bar portion. Nothing contained in the '420 Pat. supports any contrary interpretation of the term "extending from".

In his Declaration (Ex. 1013), Dr. Brookstein states that he has reviewed the prior art and has determined that the construction proposed above is consistent with how the term "extending from" is used in the art. *See* Ex. 1013 at ¶¶42-46. Based on his review of the '420 Pat. and the dictionary definition of "from", Dr. Brookstein is of the opinion that the proposed construction would be consistent with the meaning that a skilled person would reach. *Id.* at ¶46.

Applying its plain meaning, the claim language "pins extending upward from the base [or a base]" in Claims 1 and 6 requires that the pins extend from the base and their extension starts from the base. Similarly, the language "a slot extending from the top portion" in Claims 2 and 9 requires that the slot extend from the top portion and its extension starts from the top portion. *Id.* at ¶46.

The Patent Owner might argue that adopting the ordinary and customary meaning of the term "extending from" would lead to a claim construction that is inconsistent with the '420 Pat. specification. That is, the '420 Pat. specification does not teach any pins whose upward extension starts from the base, but rather

teaches that the pins extend upward from a bar portion of a pin bar which is, in turn, supported on the base. Accordingly, the Patent Owner might argue that the Board should adopt a claim construction that would cover pins extending ***adjacent*** the base, or an equivalent construction. However, any such alternate construction should be rejected for the following reasons.

The proposed construction of the term "pins extending from the base" is consistent with the construction proposed above in Section VIII.B for the term "pins supported on". Since the Patent Owner has used two plainly obvious terms (i.e., "pins supported on the base" and "pins extending from the base") to describe physical contact existing between two elements, it is clear that the Patent Owner intended to cover pins that are in contact with the base. Any other construction of the term "extending from" or the term "supported on" would simply be improper.

The term "extending from" is unambiguous, being capable of only one reasonable interpretation. Ex. 1013 at ¶38. In view of *Chef America, supra,* even if the construction of "pins extending from the base" in Claims 1 and 6 is inconsistent with the disclosure in the '420 Pat., the Board should not rewrite the claims, but instead apply the term's plain meaning in construing Claims 1 and 6.

D. <u>"rows of offset pins" in Claims 1 and 6</u>

Claims 1 and 6 recite "rows of offset pins". For the reasons discussed below in Section XI.B, it is not possible to construe the meaning of this claim language

with reasonable certainty, as required by *Nautilus v. BioSig Instruments, Inc.*, No. 13-369, 2014 WL 2440536, at *7 (U.S. June 2, 2014). As a result, Claims 1 and 6, as well as all claims depending therefrom (i.e., Claims 2-5, 7 and 9-13), should be declared invalid under AIA §112(a). Nevertheless, for the sole purpose of conducting a prior art analysis, this term will be construed below.

The terms "rows of offset pins" and "offset pins" do not appear anywhere in the specification. Applying a dictionary definition of "offset" (i.e., "something deriving from but set off from something else", Ex. 1012 at 6, or "placed at an angle to something, as to the axis of a form, shape, or object; not parallel", Ex. 1013 at page 95), Petitioner proposes the following two alternate constructions for the term "rows of offset pins" (*see* Ex. 1013 at ¶87):

Construction 1: Pins are arranged in rows that are spaced (i.e., set off) from each other (hereinafter "Offset Constr. 1").

Construction 2: Pins are arranged in rows and each pin of each row is set off at an angle relative to pins in each adjacent row (hereinafter "Offset Constr. 2").

E. <u>"flared portion" in Claims 3, 4, 11 and 12</u>

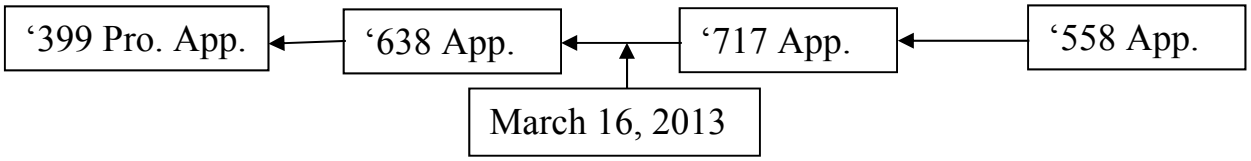
Petitioner respectfully submits that the term "flared portion" in Claims 3, 4, 11 and 12 should be construed to mean "a portion expanding outward in shape". The ordinary and customary meaning of the term "flare" is "to expand or open outward in shape". *See* The American Heritage College Dictionary, Second

Edition, (1982) (Ex. 1012 at 4). The '420 Pat. discloses a "flanged top 38 that is flared outward" (Ex. 1001 at 3:15-16 and FIG. 6) and therefore uses the term "flare" in a manner consistent with the foregoing ordinary and customary meaning. Since Claims 3, 4, 11 and 12 do not specifically limit the direction in which the flared portion expands, it is respectfully submitted that the direction of expansion can be in any direction (e.g., laterally, radially or axially).

IX. The '420 Pat. Qualifies for Post-Grant Review

Under the AIA, new statutory provisions (35 USC §§321-329) authorizing and governing post-grant reviews apply to all patents that are subject to the first-inventor-to-file ("FITF") provisions of the AIA (e.g., AIA §§102 and 103). AIA, Pub. L. No. 112-29, 125 Stat. 284, 311 (2011). According to Section 3(n)(1) of the AIA, the FITF provisions are effective as of 3/16/13 and "apply to any application for patent, and to any patent issuing thereon, that contains or contained at any time (A) a claim to a claimed invention that has an effective filing date . . . that is on or after the [3/16/13] effective date described in this paragraph; or (B) a specific reference to any patent or application that contains or contained at any time such a claim". *Id.* at 293. For the reasons discussed below, Petitioner respectfully submits that the '420 Pat. satisfies one or both of foregoing conditions (A) and (B) and is therefore subject to the AIA FITF provisions and hence a post-grant review under 35 USC §§321-329.

The ‘420 Pat. issued from the ‘558 App. filed July 26, 2013, claiming priority to the ‘717 App. filed July 10, 2013, which, in turn, claims priority to the ‘638 App. filed Sep. 8, 2011, claiming priority to U.S. Pro. App. No. 62/410,399 filed Nov. 5, 2010 (hereinafter “the ‘399 Pro. App.”). To facilitate consideration, the relationship between these four applications is graphically illustrated below. Copies of the USPTO electronic file wrappers for the foregoing applications are being submitted as Ex. 1005, Ex. 1007, Ex. 1008, and Ex. 1014.



While the ‘558 App. is characterized as a continuation of the ‘717 App., which is, in turn, characterized as a continuation of the ‘638 App., each of the ‘558 App. and the ‘717 App. was filed with an identical set of new claims which are not supported by the originally-filed disclosure of the ‘638 App. As a result, the earliest possible effective filing date of such claims is the July 10, 2013 filing date of the ‘717 App., which is after the AIA 3/16/13 effective date. Accordingly, the ‘420 Pat. is subject to the AIA FITF provisions and hence post-grant review.

A. <u>The ‘638 App. Does Not Disclose “pins supported on the base”</u>

Claims 1 and 16 of the ‘420 Pat. recite a device or a kit having “pins ***supported on*** the base” (emphasis added). As discussed in detail above in Section VIII.B, the term “supported ***on***” means “supported in contact with a surface of”.

Accordingly, the claim language "pins supported on the base" requires that the pins be ***in contact*** with the base. Ex. 1013 at ¶¶36, 51. As will be discussed below, the '638 App. (now the '565 Pat.) does not contain any disclosure of pins which are in contact with one or more bases.

With reference to FIG. 1 reproduced herein (*see* Ex. 1005 at 239), the '638 App. discloses a kit 10 for making an item formed by a series of Brunnian links. *Id.* at 228, ¶0004. The kit 10 has a base 12 and a ***pin bar*** 14 which is supported on the base 12 and from which pins 26 extend upward. In fact, the '638 App. contains no disclosure whatsoever that can reasonably be construed by a person skilled in the art as providing any written description support for this claim feature. Ex.1013 at ¶52-63.

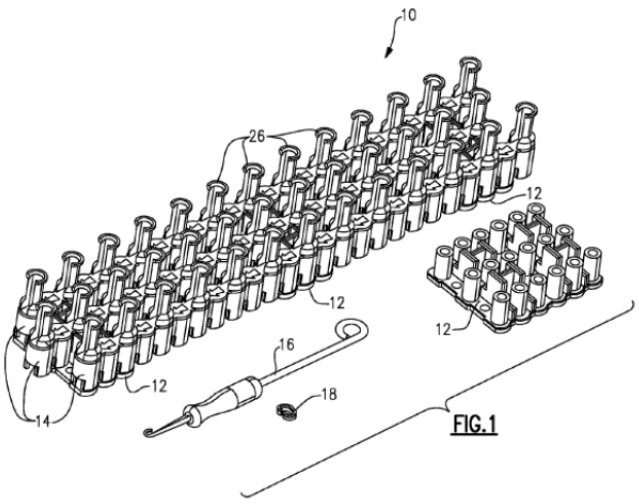
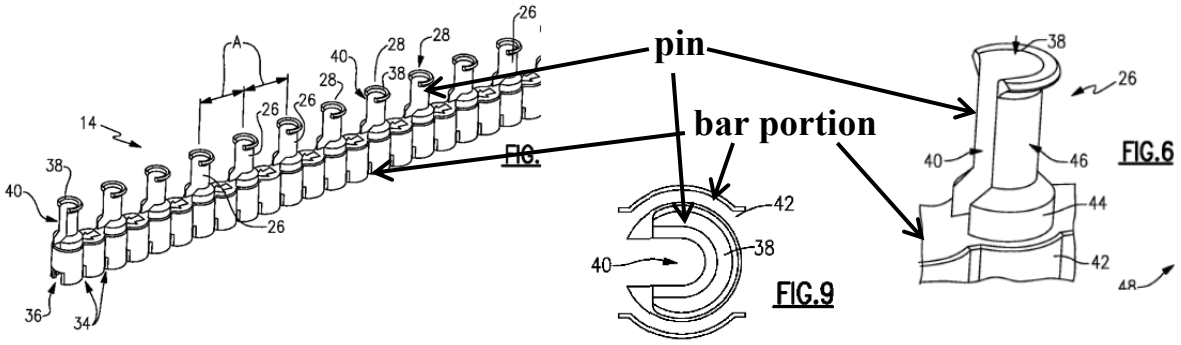


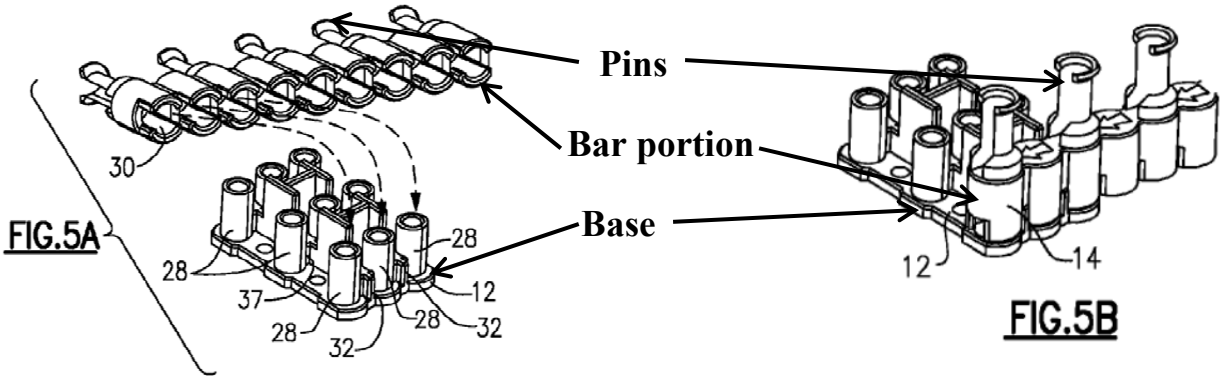
FIG.1

The entire specification and drawings of the '638 App. make it clear that each of the pins 26 is supported on its corresponding pin bar 14 and it is the **pin bar** 14 that is supported **on the base** 12. For instance, Claim 1 of the '638 App. recites "at least one **pin bar supported on** the base". *Id.* at 235. The '638 App. further states that "[a]lthough three bases 12 are shown . . . , more or less could be utilized to **support** additional numbers of pin bars 14" (emphasis added), *id. at* 231,

¶0034, and that "[t]he front slot 34 and boss 38 interface further . . . **supports the pin bar 14 on the base 12**" (emphasis added), *id.* at 231, ¶0035.



The '638 App. also discloses that each of the pins 26 "**extends upward from a bar portion 42"**. *Id.* at 231, ¶0037. FIGS. 4, 6 and 9 (reproduced above with annotation), as well as the rest of the figures and the specification of the '638 App., clearly illustrate that the pins 26 extend upward from the bar portion 42 of the pin bar 14. Ex. 1013 at ¶¶53-56.



Since the pins 26 extend upward from the bar portion 42, the pins 26 are clearly not elements that are supported on the base 12. As shown in FIGS. 5A-B (reproduced above with annotation), which is described as a "view of **a pin bar mounted to an example base**" (emphasis added), Ex. 1005 at 229, ¶0013, it is the

bar portion 42 of the pin bar 14 that entirely engages the base 12. For instance, FIGS. 5A-B illustrate columns 28 for reception into openings 30 formed in the bar portion 42, rather than in the pins 26. Moreover, the portion 44 that is designated in the '638 App. as "a **bottom** portion" of each pin 26 (*see id.* at 232, ¶0038) is located on the bar portion 42. *See* FIGS. 4 and 6. Since the bottom portion 44 of each pin 26 terminates on top of the bar portion 42, no portion of the pin 26 can extend downward beyond the upper surface of the bar 42, as shown in FIG. 6. In fact, the entire upper surface of the bar portion 42 is closed off such that it is impossible to have any portion of the base 12 engage or come in contact with any portion of the pin 26 when the pin bar 14 is assembled with one or more bases 12. For instance, FIG. 6 shows the closed-off upper surface of the bar portion 42, while FIG. 9 (reproduced above) includes reference numeral "42" pointing to the closed-off upper surface of the bar portion 42. No provision is therefore provided in the upper surface of the bar portion 42 so as to allow any direct engagement or contact between the base 12 and the pins 26. Accordingly, the pins 26 cannot be **supported on** (i.e., in contact with) any base 12, but are supported only on the pin bar 14 (i.e., the bar portion 42). *See* Ex. 1013 at ¶¶52-60.

While FIG. 17 (*see* below) illustrates a base template 66 which is different from the bases 12 shown in FIGS. 5A-B, there is no disclosure in the '638 App. that the base template 66 comes in contact with, or otherwise engages, the pins 26.

More particularly, the bar potions 42 of the pin bars 14 are received in grooves 70 of the base template 66. The base template 66 shown in FIG. 17 does not come in contact with any portion of the pins 26. In fact, no portion of the base template 66 can ever come in contact with or engage the pins 26 because each of the bottom portions 44 of the pins 26 has a diameter that is significantly smaller than the width of the bar portion 42. *See* Ex. 1005 at 242, FIGS. 6-7. *See* Ex. 1013 at ¶62.

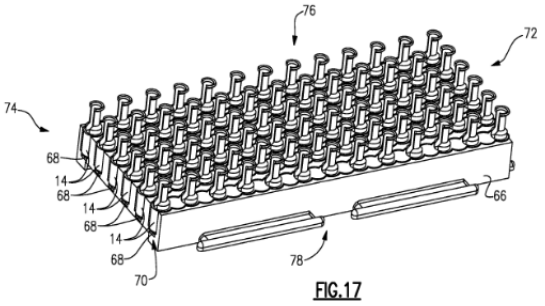


FIG.17

As illustrated in the figures of the '638 App., each of the pin bars 14 is an element that is distinct and separate from each of the bases 12. The '638 App. states that each of the pin bars 14 is "an **integral structure** having the plurality of pins 26 defined in a single row" (emphasis added). Ex. 1005 at 231, ¶0036. The constructions of the pin bars 14 and the bases 12 as separate and distinct pieces serve an important function, as emphasized throughout the '638 App. Because the pin bars having the pins 26 are provided as separate pieces from the bases 12 for selective assembly therewith, "several **pin bars** . . . [can] be supported **in a desired spatial orientation** by at least one base. The desired spatial orientation is **dependent** on the desired link configuration of the completed article. The base and pin bars may be **assembled in various combination and orientations** to provide **endless variation of completed link orientations**" [*sic*] (emphasis added). *Id*. at

228-229, ¶0005. This function of the kit is highlighted throughout the '638 App.:

- "The example kit provides for the successful creation of unique wearable articles using Brunnian link assembly techniques and includes several **pin bars** that are supported in a **desired special orientation** by at least one base." (emphasis added). *Id.* at Abstract.
- "[T]he extent to which additional bases and pin bars 14 can be added and the **configurations possible are limited only by the desire of the user of the disclosed kit**. The addition of pin bars 14 provides for **more unique and intricate designs limited only by the imagination of the user of the kit**" (emphasis added). *Id.* at 232, ¶0041.
- *See* also *id.* at 233, ¶0044, and 234, ¶0049.

In view of the foregoing, there is no disclosure in the '638 App. of pins being supported on (i.e., in contact with) the base, as called for by Claim 1 of the '420 Pat. Ex. 1013 at ¶63. Nevertheless, the Patent Owner might argue that the '638 App. discloses such pins. In describing the arrangement between the bases 12 and the pin bars 14, the '638 App. states that "the base 12 includes . . . cylinders 28 that are received within a corresponding opening 30 defined at the bottom of each pin 26 [*sic*] the pin bar 14" (hereinafter "Statement 1"). Ex. 1005 at 231, ¶0034. Given the clear disclosure throughout the '638 App. of the opening 30 formed in the bar portion 42, which is below the pins 26, a skilled person would construe the

foregoing statement to mean that the opening 30 is formed below the bottom of each pin 26. Ex. 1013 at ¶64. Thus, such a person would not understand this statement as disclosing that the pins are in contact with the base. *Id.*

The '638 App. also contains the following statement: "Each of the pins 26 includes a front slot 36 that receives boss 38 defined between cylinders 28 of the base 12" (hereinafter "Statement 2"). Ex. 1005 at 231, ¶0035. Initially, Petitioner notes that this Statement makes no sense, because reference number "38" is used in the figures to refer to the flanged top 38 of the pin 26. *See*, e.g., FIG. 6 on p. 26 above. It is impossible for any slot provided on the pin to receive a flanged top that is also formed on the pin. As a result, a skilled person would not understand what is meant by this ambiguous statement, but certainly not pins that are in contact with the base. Ex. 1013 at ¶65.

When Statements 1 and 2 are considered in light of the '638 App. as a whole, neither Statement provides any support for the "pins supported on the base" feature of Claims 1 and 16 of the '420 Pat. More particularly, both Statements are made in describing the specific embodiment illustrated in FIGS. 4, 5A-B. *See* Ex. 1005 at 231, ¶0034 (stating "Referring to Figures 4, 5A-B") and ¶0035 (which immediately follows ¶0034). The Statements do not indicate that they are describing any alternate embodiment. As discussed above, FIGS. 4 and 5A-B clearly illustrate that the pins 26 are provided on the upper surface of the bar portion 42, which is

described and illustrated throughout the entire '638 App. as being a distinctly different element from (i.e., not a part of) the pins 26. As clearly demonstrated in these figures, the opening 30 and the front slot 36 are formed on the bar portion 42 of the pin bar 14, and not on any of the pins 26. Moreover, within the same paragraph, the '638 App. correctly describes that a different slot 34 (illustrated in FIGS. 4 and 5A-B as being formed on the bar portion 42) is "defined **on the pin bar** 14" (emphasis added). *Id.* at 231, ¶0035. Since the pins 26 are provided on top of the bar portion 42 and do not ever come in contact or engagement with the base 12 and since the opening 30 and the front slot 36 are specifically provided in the pin bar 14 for receiving mating features formed on the base 12, it would make no sense whatsoever to form the opening 30 and the slot 36 on the pins 26. Ex. 1013 at ¶60. Accordingly, when the '638 App. is considered as a whole, a person skilled in the art would construe the Statements consistently with the rest of the disclosure of the '638 App. and conclude that the opening 30 and the slot 36 are formed on the bar portion 42, rather than the pins 26. In other words, a skilled person would conclude that the inventor did not have possession of pins ***supported on*** the base at the time of filing of the '638 App. *See* also Ex. 1013 at ¶59-60, 62-68.

Original Claim 3 of the '638 App. also recites that "the base includes a plurality of mating structures receivable within a mounting opening defined within each of the plurality of pins". For the reasons discussed in the preceding paragraph,

the subject matter recited in this claim cannot provide support for the "pins supported on the base" feature of Claims 1 and 16 of the '420 Pat. Moreover, all features recited in a claim must be illustrated in the drawings of its corresponding application. *See* 37 C.F.R. § 1.83(a) (requiring that each feature of the invention described in the claims must be shown in the drawings unless they are conventional features that are not essential to the understanding of the invention). As discussed above, the drawings of the '638 App. undeniably show the mounting opening recited in the claim as being formed within the bar portion 42, rather than within any of the pins 26. Ex. 1013 at ¶69.

As discussed in Section V above, loom products sold by the Patent Owner's competitors, including Petitioner and Zenacon, are not equipped with any pin bar. Because the claims of the '565 Pat. require, *inter alia, "*a pin bar supported on the base", such products did not, and still do not, fall within the scope of the '565 Pat. Realizing this deficiency, the Patent Owner had to do something to salvage its infringement claims. To achieve this purpose, the Patent Owner elected to rewrite the claim limitation "a pin bar supported on the base" in the '565 Pat. to "pins supported on the base". In doing so, the Patent Owner improperly introduced in the claims of the '717 and '558 Apps. new subject matter which is not described in the '638 App. As a result, the earliest possible effective filing date that Claims 1 and 16 of the '420 Pat. is entitled to is the July 10, 2013 filing date of the '717 App.

For the reasons discussed above, it is respectfully submitted that the "pins supported on the base" feature of Claims 1 and 16 of the '420 Pat. are not supported by the written description of the '638 App. *Id.* at ¶70. Accordingly, the Board should rule that at least Claims 1 and 16 are entitled to only the July 10, 2013 filing date of the '717 App or the July 26, 2013 filing date of the '558 App., both of which are after the 3/16/13 AIA FITF effective date.

B. <u>The '638 App. Does Not Disclose "pins extending upward from the base"</u>

Claims 1 and 6 recite "pins . . . extending upward from the base". As construed above in Section VIII.C, because of the phrase "extending . . . ***from***", the foregoing claim recitation requires that the pins start its upward extension from the base and therefore be in contact with the base. As demonstrated in Section IX.A above, the entire disclosure of the '638 App. teaches that the pins 26 are provided on the upper surface of the bar portion 42 of the pin bar 14. *See*, e.g., Ex. 1005 at 241-242, FIGS. 4 & 6-9. Since the upper surface of the bar portion 42 is closed off and no portion of the pins 26 extends below the bar portion 42, the pins 26 do not even come into contact with or otherwise engage the base 12. Accordingly, none of the pins 26 can ever extend upward ***from*** base 12, as required by Claim 1 and 6 of the '420 Pat. In fact, in direct contrast to Claims 1 and 6 of the '420 Pat., the '638 App. unequivocally states that "each pin 26 extends upward ***from a bar portion*** 42" (emphasis added). *Id.* at 231, ¶0037. Since Claims 1 and 6

of the '420 Pat. directly contradict the clear disclosure of the '638 App., there is no written support in the '638 App. for the "pins extending from the base" claim term in the '420 Pat. *See* Ex. 1013 at ¶73-75.

C. <u>Claims 1, 6, 10 & 16: "an opening on at least one side . . ."</u>

The '420 Pat. is not entitled to the benefit of the earlier application filing date of the '565 Pat. (i.e., the '638 App.) because the phrase "at least one side" as recited in Claims 1, 6, 10 and 16 of the '420 Pat. constitutes new matter. Claims 1, 6 and 16 recite "an opening on **at least one side** of each of the plurality of pins", while Claim 10 recites "an access groove disposed along **at least one side** of each of the plurality of pins" (emphasis added). This phrase provides that more than one side of each of the pins can have a corresponding opening or an access groove (i.e., each pin can have **more than one opening or groove**). However, the specification of the '638 App. (now the '565 Pat.) merely discloses a single "**front** access groove" on each of the pins. See Ex. 1005 at 231, ¶0036. (emphasis added). That is, there is only one access groove on one side of each of the pins. *See id.* at 241-242, FIGS. 4, 6 & 9 showing a single access groove. The '638 App. does not suggest anywhere in the specification that more than one opening or access groove can be provided in each pin.

In *Anascape, Ltd. v. Nintendo of Am. Inc.*, 601 F.3d 1333 (Fed. Cir. 2010), the patentee's parent application disclosed the element "a single input member" for

use in controlling the movement of images on a computer or television display. In a continuation application, the patentee changed this phrase to "at least one input member" throughout the specification. *Anascape*, 601 F.3d 1333. The Federal Circuit held that these changes were "extensive and substantive", and, therefore, constituted new matter such that the continuation application was not entitled to the benefit of the parent's earlier filing date. *Id*. at 1338.

Anascape, supra, is analogous to the present matter. That is, the introduction of the phrase "**at least** one side" in Claims 1, 6, 10 and 16 of the '420 Pat. constitutes an "extensive and substantive" change from the '638 App. such that it constitutes new matter. Accordingly, the '420 Pat. is not entitled to the benefit of the earlier filing date of the '638 App.

D. Claims 7 and 15: "manipulating a link"

For the following reasons, the phrase "manipulating a link" recited by Claims 7 and 15 of the '420 Pat. constitutes new matter. Claim 7 of the '420 Pat. recites "a hook tool for **manipulating** a link held in a desired orientation on at least one of the plurality of pins," while Claim 15 recites the step of "providing a hook tool for insertion into the access opening for **manipulating** a link supported on one of the plurality of pins." (emphasis added). There is no disclosure in the '638 App. of a hook tool performing the function of "manipulating a link," nor is this specific phrase found therein. The '638 App. discloses that "a hook tool is included for

grasping and moving bands from one pin 26 to another," and "moving ends of a **rubber band** between pins 32." See Ex. 1005 at 231, ¶0033 and ¶0037. However, the term "manipulate" is defined as "to operate or control by skilled use of the hand; handle", American Heritage College Dictionary, Second Edition (1982) (*see* Ex. 1031 at 3), and therefore encompasses much more than simply grasping and/or moving bands. Accordingly, the original disclosure of the '638 App. does not provide support for the claim term "manipulating". *See Anascape, supra.*

E. <u>The New Features in the '402 Pat. Not Entitled to '399 Prov. App.</u>

The '420 Pat. claims priority to the '399 Pro. App. via the '638 App. and the '717 App. However, because the '638 App. fails to provide written support for the claim features of the '420 Pat. discussed above in Sections IX.A-D., none of these features is entitled to the '399 Pro. App.'s filing date. *See Lockwood v. Am. Airlines, Inc.,* 107 F.3d 1565, 1571 (Fed. Cir. 1997) (stating that to satisfy 35 U.S.C. § 120 and gain the benefit of an earlier filing date, each application in the chain must properly satisfy 35 U.S.C. § 112's written description requirement) and *Hollmer v. Harari*, 681 F.3d 1351, 1355 (Fed. Cir. 2012) *cert. denied,* 133 S. Ct. 989, 184 L. Ed. 2d 763 (U.S. 2013) (holding that inadequate written description of one application in the chain precludes claiming priority to those applications filed earlier than the insufficient application). It is therefore obvious that the Patent Owner cannot rely on the '399 Pro. App.'s filing date for the claims of the '420 Pat.

F. No Incorporation-by-Reference in the '638, '717 & 558 Apps.

The '638, '717 and '558 Apps. fail to contain any incorporation-by-reference language. Accordingly, the disclosure of each of these applications is limited to the written description specifically contained in each of them. 37 C.F.R. §1.57(b) requires that "an incorporation by reference ***must*** be set forth in the specification and ***must***: (1) [e]xpress a clear intent to incorporate by reference by using the root words 'incorporat(e)' and 'reference' (*e.g.,* 'incorporate by reference'); and (2) [c]learly identify the referenced patent, application, or publication" (emphasis added). *Id.* Simply including a priority claim to an earlier application without the language required by 37 C.F.R. §1.57(b) is not sufficient. *In re de Seversky,* 474 F.2d 671 (CCPA 1973). The words "incorporat(e)" and "reference" are not used in conjunction with each other in any of the '638, '717 and '558 Apps. Because each of these applications fails to recite the specific incorporation-by-reference language required by 37 CFR §1.57(b), none of them can rely on the disclosure of any prior application, including the '399 Pro. App., to provide support for any of the claim features of the '420 Pat. discussed above in Sections IX.A-D.

G. Designation as Continuation Does Not Save the '420 Pat.

The '558 App. (now the '420 Pat.) was filed as a "continuation" of the '717 App., which was, in turn, filed as a "continuation" of the '638 App. (now the '565

Pat.). The Patent Owner's "continuation" designations in the '558 or '717 App. do not affect the conclusions reached above. More particularly, even if the specifications of the '558, '717 and '638 Apps. were identical, the '558 and '717 Apps. were filed with claims that contained subject matter which is not supported by the disclosure of the '638 App. When a "continuation" application is filed with a claim reciting new matter not disclosed in its parent application, the continuation application does not receive the benefit of the parent's earlier filing date. *See, e.g., Lockwood,* 107 F.3d at 1571.

H. Examination under Pre-AIA Patent Law Is Non-Binding

The file histories for the '558 and '717 Apps. indicate that these applications were examined under the Pre-AIA Patent Law. This happened because the Patent Owner failed to properly designate the '558 and '717 Apps. as AIA (first inventor to file) transitional applications (i.e., applications filed on or after 3/16/13 and claiming priority to an application before 3/16/13, but containing at least one claim having an effective filing date on or after 3/16/13) in a Statement Under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications. As demonstrated above, many claims in the '558 and '717 Apps. have an effective filing date on or after March 16, 2013. Accordingly, it is respectfully requested that the Board accept this Petition so that patentability with respect to the '420 Pat. can be properly reexamined under the AIA FITF provisions.

X. The Patent Owner Is Estopped From Arguing Patentability

The Patent Owner is estopped from presenting arguments in support of the patentability of the Challenged Claims. Under 37 CFR §42.73, "[a] patent applicant or owner is ***precluded from taking action inconsistent*** with . . . adverse judgment, including obtaining in any patent . . . a ***claim that is not patentably distinct from*** a . . . cancelled claim" in an *inter partes* review (emphasis added). 37 CFR §42.73(d)(3). The Board instituted an *inter partes* review on Claims 1, 5-8, 10 and 11 of the '565 Pat. under the '218 IPR. After the institution of the '218 IPR, the Patent Owner voluntarily filed a Disclaimer with respect to all of these claims and requested the Board to issue adverse judgment against itself, thereby conceding to the claims' unpatentability. Ex. 1005 at 4. On 6/7/14, the Board entered adverse judgment against the Patent Owner under 37 CFR 42.73(b)(2). Ex. 1003 at 2-3. The Patent Owner is thus estopped from taking any action that is inconsistent with this adverse judgment, including obtaining any patent claims that are patentably indistinct from the claims disclaimed by the Patent Owner in the '565 Pat. The Challenged Claims are patentably indistinct from the disclaimed claims in the '565 Pat. In such circumstances, the Patent Owner should be precluded from defending against the unpatentability of the Challenged Claims in the present PGR proceeding.

During the prosecution of the '558 App. (issued as the '420 Pat.), the

Examiner issued an obviousness-type double patenting rejection of the claims which ultimately issued as Claims 1-7 and 9-16 of the '420 Pat. Ex. 1008 at 253-254. More particularly, the Examiner concluded that these rejected claims in the '558 App. were unpatentable (i.e., patentably indistinct) over Claims 1-18 of the '565 Pat. *Id*. While the Patent Owner could have traversed the Examiner's double patenting rejection, it elected not to do so, but instead voluntarily submitted a Terminal Disclaimer with respect to the '565 Pat. Ex. 1008 at 235. Given the Patent Owner's failure to traverse the double patenting rejection, it is clear that the Patent Owner conceded to the Examiner's conclusion that the rejected claims were obvious over the claims of the '565 Pat. Since the Patent Owner disclaimed Claims 1, 5-8 and 10 and 11 in the '565 Pat. and adverse judgment has been entered against such claims in the '218 IPR, the Patent Owner is now precluded from arguing in this proceeding that Claims 1-7 and 9-16 of the '420 Pat. are patentable.[1]

While Petitioner believes that the Patent Owner's concession to the Examiner's double patenting position is sufficient to establish that Claims 1-7 and

[1] In addition to providing an estoppel effect, the subject matter of the claims disclaimed in the '218 IPR is in the public domain (due to the Patent Owner's concession to their unpatentability) and is therefore effectively representative of prior art with respect to the claims of the '420 Pat. *See* Section XII.A below.

9-16 of the '420 Pat. are patentably indistinct over the claims of the '565 Pat., it submits the following charts to illustrate this point. *See also* Ex. 1013 at ¶128-135.

The '420 Pat.	**The '565 Pat.**
1. A device for creating an item consisting of a series of links, the device comprising:	1. A kit for creating an item consisting of a series of links, the device comprising:
a base; and	a base; and
a plurality of **pins supported on the base**,	at least one **pin bar supported on the base**, the pin bar including a plurality of pins
wherein each of the plurality of pins includes a **top portion** for holding a link in a desired orientation and	each [pin] including a top **flared** portion for holding a link in a desired orientation and
an opening on at least **one side** of each of the plurality of pins,	an opening on a **front** side of each of the plurality of pins.
wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from the base.	None recited.

As illustrated above, Claim 1 of the '420 Pat. (hereinafter "'420 Claim 1") is similar to Claim 1 of the '565 Pat. (hereinafter "'565 Claim 1"). While there are differences between the language of '420 Claim 1 and '565 Claim 1 (indicated in the foregoing chart by bold typeface), these differences are not considered sufficient to establish that '420 Claim 1 is patentably distinct over '565 Claim 1. More particularly, the "a top flared portion" and "an opening formed on a front side . . ." recitations of '565 Claim 1 are narrower than, and therefore read on, the "a top portion" and "an opening formed on at least one side . . ." elements, respectively, of '420 Claim 1. While the "pins supported on the base" and the "wherein the plurality of pins comprises rows of offset pins" elements of '420 Claim 1 are not specifically recited in '565 Claim 1, these features are well known

in the art as evidenced by La Croix (Ex. 1015) or Gustin (Ex. 1017).

As discussed below in Section XII.C & E, Gustin and La Croix each disclose a knitting board which reads on '420 Claim 1 and therefore includes the two elements not recited in '565 Claim 1 (i.e., "rows of offset pins"/"pins supported on the base"). Since La Croix/Gustin and the subject matter of '565 Claim 1 are directed to the same technical field (i.e., devices having arranged pins for making articles by forming links) (*see* Ex. 1013 at ¶102), a skilled person would have looked to La Croix and/or Gustin to modify the subject matter of '565 Claim 1. For instance, it is well known in the art that devices having less parts would generally lead to a simpler design requiring reduced manufacturing costs and at the same time making it easier for its user to use the device. *Id.* at ¶¶112, 124 In such circumstances, a skilled person would have been motivated to modify the subject matter of '565 Claim 1 by eliminating the pin bar so as to support the pins on the base and by arranging the pins in an offset manner, as taught by La Croix or Gustin. *Id.* S*ee* also Section XII.C.2. and XII.E3. Accordingly, '420 Claim 1 is obvious over, and patentably indistinct from, '565 Claim 1 in view of La Croix or Gustin. *Id.* S*ee* Ex. 1013 at ¶133.

Claim 6 is identical, in scope, to Claim 1. Accordingly, Claim 6 is also obvious over '565 Claim 1 in view of La Croix or Gustin. What follows are claim charts comparing the remaining respective claims.

<table>
<tr><th>The ‘420 Pat.</th><th>The ‘565 Pat.</th></tr>
<tr><td>Claims 2 and 9. The device as recited in claim 1 (C. 2) or the kit as recited in claim 6 (C. 9), wherein the opening comprises a slot extending from the top portion toward the base.
Claim 10. The kit as recited in claim 6, wherein the opening comprises an access groove disposed along at least one side of each of the plurality of pins</td><td>See Claim 1
See also Claim 8. “The kit as recited in claim 1, including a hook adapted to extend into the access groove for capturing one end of a link.”</td></tr>
<tr><td>Claims 3 and 11. The device as recited in claim 1 (C. 3) or the kit as recited in claim 6 (C. 11), wherein the top portion comprises a flared portion for holding a link in place on at least one of the plurality of pins.</td><td>See Claim 1 stating “. . . each [pin] including a top flared portion for holding a link in a desired orientation . . .”</td></tr>
<tr><td>Claims 4 and 12. The device as recited in claim 1 (C. 4) or the kit as recited in claim 6 (C. 12), wherein each of the plurality of pins includes a bottom flared portion spaced apart from the top portion and a mid portion for holding a link.</td><td>5. The kit as recited in claim 1, wherein each of the plurality of pins includes a bottom flared portion spaced apart from the top flared portion and a mid portion for holding a link.</td></tr>
<tr><td>Claims 5 and 13. The device as recited in claim 1 (C. 5) or the kit as recited in claim 6 (C.13), wherein the base includes a mating feature for combining additional devices and additional pluralities of pins.</td><td>6. The kit as claimed in Claim 1, wherein the base comprises a plurality of bases for securing a plurality of pin bars in a desired relative special orientation for forming the series of links in a desired pattern.
7. The kit as claimed in Claim 6, wherein the base comprises a key and each of the plurality of pin bars includes a corresponding slot for aligning each of the plurality of pin bars relative to the base and to other of the plurality of pin bars.</td></tr>
<tr><td>Claim 16.</td><td>All elements of Claim 16 are recited in Claim 5 (see Section VII above). All such elements are therefore included in Claims 6-7 above.</td></tr>
<tr><td>Claim 7. The kit as recited in claim 6, including a hook tool for manipulating a link held in a desired orientation on at least one of the plurality of pins.</td><td>8. The kit as recited in claim 1, including a hook adapted to extend into the access groove for capturing one end of a link.</td></tr>
</table>

As illustrated above, Claims 2-5, 7, 9-13 and 16 of the ‘420 Pat. are virtually identical, in scope, to cancelled Claims 1 and 5-8 of the ‘565 Pat. For the reasons

discussed above for Claim 1, Claims 2-5, 7, 9-13 and 16 of the '420 Pat. are obvious over their corresponding '565 Pat. claims in view of La Croix or Gustin.

Claim 14. A method of assembling a kit for creating a linked item comprising the steps of:	1. A kit for creating an item consisting of a series of links, the device comprising:
supporting a plurality of pins to define a desired spatial relationship between pins;	a base; and at least one pin bar supported on the base, the pin bar including a plurality of pins each including a flared top portion for holding a link in a desired orientation and
providing an access opening on each of the plurality of pins to provide access for a hook tool to grasp a link supported on one of the plurality of pins;	an opening on a front side of each of the plurality of pins. *See* also 8. The kit as recited in claim 1, including a hook adapted to extend into the access groove for capturing one end of a link.
providing a plurality of links for assembly to the plurality of pins according to a desired pattern; and	The preamble of Claim 1 reciting "creating an item consisting of a **series** of **links**."
providing a plurality of connectors for holding links together once a desired pattern is completed.	*See* below.
Claim 15. The method as recited in claim 14, including the step of providing a hook tool for insertion into the access opening for manipulating a link supported on one of the plurality of pins.	8. The kit as recited in claim 1, including a hook adapted to extend into the access groove for capturing one end of a link.

Claims 14 and 15's step of providing a plurality of connectors is not recited in Claim 1 or 8 of the '565 Pat. However, Ng (Ex. 1016), a USPTO publication corresponding to the '638 App., constitutes prior art with respect to the '420 Pat. due to the fact that it was published on May 10, 2012. Ng, which has an identical disclosure as the '420 Pat., discloses a plurality of connectors for holding links. Ex. 1016 at ¶0045. Accordingly, Claims 14 and 15 of the '420 Pat. are rendered

obvious over Claim 1 or 8 of the '565 Pat. in view of Ng. *See* Ex. 1013 at ¶134-135.

XI. Unpatentability Of Claims 1-7 and 9-16 Under AIA §112

A. The Challenged Claims Are Not Supported by Written Specification

AIA § 112 requires that the "specification shall contain a written description of the invention" that is sufficiently detailed so that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention at the time of filing. *Vas-Cath, Inc. v. Mahurkar,* 935 F.2d 1555, 1563 (Fed. Cir. 1991). Claims 1-7 and 9-16 of the '420 Pat. lack adequate written description anywhere in the specification. At least the following claim terms are not disclosed in the '420 Pat. specification: a plurality of pins supported on the base (Claims 1 and 16); pins . . . extending upward from the/a base (Claims 1 and 6); an opening on at least one side of each of the plurality of pins (Claims 1, 6 and 16); an access groove disposed along at least one side of each of the plurality of pins (Claim 10); and manipulating/grasping a link (Claims 7, 14 and 15).

The foregoing claim terms were discussed above in Section IX in conjunction with the original disclosure of the '638 App. It was concluded that these claim terms lack written description support in the '638 App. Since the Patent Owner filed the '558 App. (the '420 Pat.) as a "continuation" of the '638 App, the '558 and '638 Apps. have virtually identical disclosures. Accordingly, for the reasons discussed above in Sections IX.A-D, it is respectfully submitted that

these claim terms lack written support from the specification of the '420 Pat. Thus, Claims 1-7 and 9-16 are invalid for failure to comply with AIA § 112(a).

B. The Challenged Claims Are Indefinite

Under AIA § 112(b), "[t]he specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor . . . regards as the invention." In *Nautilus v. BioSig Instruments, Inc.*, No. 13-369, 2014 WL 2440536, at *7 (U.S. June 2, 2014), the Supreme Court read "§ 112, ¶ 2 to require that a patent's claims, viewed in light of the specification and prosecution history, inform those skilled in the art about the scope of the invention with reasonable certainty." It is not sufficient that a court "can ascribe *some* meaning to a patent's claims" (emphasis in original). *Id*. at Abstract. "If a claim is amenable to two or more plausible claim constructions, the USPTO is justified in requiring the applicant to more precisely define the metes and bounds of the claimed invention by holding the claim unpatentable under 35 U.S.C. § 112, [¶ 2], as indefinite." *Ex parte Miyazaki*, 89 U.S.P.Q.2d 1207, 1211 (BPAI 2008).

The '420 Pat. is indefinite at least with respect to the phrase "rows of offset pins", which appears in only two places in the '420 Pat.: independent Claims 1 and 6. Claims 1 and 6 recite "**rows of offset pins** spaced apart and extending upward from the base". This claim term is indefinite because it is susceptible to multiple meanings without any guidance from the '420 Pat. as to which interpretation was

meant. For instance, with the exception of the requirement that the "**rows of offset pins**" extend upward from a/the base, and be separated by "space", there is no guidance given by the '420 Pat. as to the spatial relationship between these rows or between the pins within the rows. "**Rows of offset pins**" could be interpreted to mean, for example, that each row could consist of a straight line of pins, each row being "offset" by a certain distance from another row or that pins in each row are "offset" or staggered relative to other pins in adjacent rows. *See* Ex. 1013 at 79-86. This lack of clarity prevents someone skilled in the art from determining the scope of the claims of the '420 Pat. with reasonable certainty, and Petitioner respectfully submits that it renders at least Claims 1 and 6 and their dependent claims invalid for indefiniteness under AIA§ 112. *See id*.

The following terms are also indefinite: (1) desired orientation/desired spatial relationship (Claims 1, 6, 7, 14 and 16); (2) additional devices (Claims 5, 13 and 16); (3) manipulating/grasping a link (Claims 7, 14 and 15); (4) assembling a kit for creating a linked item (Claim 14); and (5) supporting a plurality of pins to define a desired spatial relationship between pins (Claim 14, the second recitation of "pins" lacks antecedent basis; and therefore it is not clear whether such recitation refers to the "pins" in the first recitation or to any additional pins).

Given multiple constructions of these terms, and the lack of guidance provided by the '420 Pat. for any of the foregoing terms, Claims 1-7 and 9-16

should be found invalid for indefiniteness under AIA § 112(b).

C. The Challenged Claims Are Non-Enabled

AIA § 112(a) requires sufficient disclosure so as to enable one skilled in the art to make and use the invention. "The specification must teach those skilled in the art how to make and use the full scope of the claimed invention without 'undue experimentation'". *In re Wright*, 999 F.2d 1557, 1561 (Fed. Cir. 1993).

As discussed above, the specification does not disclose or describe numerous claim terms contained within the Challenged Claims. For instance, the '420 Pat. fails to provide any disclosure of "a plurality of pins **supported on** the base", "rows of offset pins [] **extending upward from** the base" or "an opening on **at least one side** of each of the plurality of pins" contained in Claims 1, 6 and/or 16. Further, the '420 Pat. fails to describe "a hook tool" which can "**grasp a link**", as well as "providing **a plurality of links** for assembly to the plurality of pins according to a desired pattern" contained in Claim 14. Moreover, as previously mentioned, numerous other claim terms are also absent from the '420 Pat.'s disclosure. It is impossible for a specification to enable a claim where the specification is silent as to elements contained therein. The '420 Pat. provides no reasonable correlation between the scope of the claims and the scope of enablement of the specification, and one skilled in the art would be unable to make and use the invention claimed by the '420 Pat. without undue experimentation.

Therefore, Claims 1-7 and 9-16 are invalid under §112(a) as non-enabled.

XII. Unpatentability of Claims 1-7 and 9-16 Under AIA §§102 and/or 103

The unpatentability of the Challenged Claims based on prior art references will be discussed below. According to *Examination Guidelines for Implementing the First Inventor to File Provisions of the Leahy-Smith America Invent Act,* Federal Register, Vol. 78, No. 31, 11059 (Feb. 14, 2013), when an application contains/ever contained even a ***single*** claim having a filing date that is on or after 3/16/13, AIA §§102 and 103 apply to ***all*** of the claims, including any claims having an effective filing date before March 16, 2013. *Id.* at 11083. Accordingly, all of the Challenged Claims will be analyzed below under AIA §102 and 103.

With respect to Gustin, Macbain and La Croix (Ex. 1017, 1019 and 1015, respectively), which are discussed below and each of which constitutes a prior art reference against the '420 Pat., they were cited during the prosecution of the '420 Pat. However, none of these references were relied upon by the Examiner in support of his rejections. As discussed below, these references each anticipate and/or make obvious all of the Challenged Claims. Given their high relevance to the unpatentability of the Challenged Claims, it is apparent that the Examiner did not give due consideration to Gustin, Macbain and La Croix.

A. Claim 1-7 and 9-16 Are Obvious Over Ng In View of Gustin/La Croix

Because Ng (Ex. 1016) was published on May 10, 2012, it constitutes a prior

art reference against the '420 Pat. As discussed in Section X above, Claims 1-7 and 9-16 of the '420 Pat. are patentably indistinct from the claims of the '565 Pat., when considered in combination with Gustin or La Croix. Since Ng contains the same claims included in the '565 Pat. and contains the same disclosure as that of the '565 Pat., it follows that the Challenged Claims are obvious over Ng in view of Gustin and La Croix and are therefore unpatentable under AIA §103(a) for the same reasons discussed in Section X.

B. Claims 1-7 and 9-16 Are Anticipated by Zenacon's Fun Loom Product

Zenacon started selling its FUNLOOM® loom kit (hereinafter "FunLoom Kit") at least as early as June 14, 2013. Ex. 1006 at 2, 28. Since this date of sale of the FunLoom Kit predates the 7/10/13 effective filing date of the '420 Pat., it constitutes prior art under AIA §102(a).[2]

In its June 14, 2013 letter to Zenacon alleging patent and trademark infringement, the Patent Owner acknowledged that the FunLoom Kit was on sale as of the date of that letter (*see* Ex. 1006 at 30-32). Despite the fact that the Patent Owner was fully aware of the sale of the FunLoom Kit prior to the filing of the

[2] Petitioner submits that none of the exceptions specified in AIA §102(b) applies in this case. Moreover, Mr. Steve Verona, CEO of Zenacon, states that he is the original inventor of the invention disclosed and claimed in his U.S. patent application, which is directed to the FunLoom Kit. *See* Ex. 1006 at 74.

'558 App. (the '420 Pat.), the Patent Owner never cited the FunLoom Kit to the Examiner during the prosecution of the '558 App.

As discussed above, the Patent Owner has asserted the '420 Pat. against Zenacon, claiming that the '420 Pat. is infringed by the FunLoom Kit. Ex. 1006 at 138-143. More particularly, the Patent Owner alleges that the claims of the '420 Pat. read on the FunLoom Kit. Since the FunLoom Kit constitutes prior art against the '420 Pat., the Patent Owner's infringement claim constitutes an admission that the claims of the '420 Pat. are anticipated and therefore rendered unpatentable by the FunLoom Kit under AIA § 102(a). For this reason alone, the Board should cancel all of the Challenged Claims. Nevertheless, to facilitate the Board's consideration, Petitioner provides the following analysis of the FunLoom Kit.

PHOTO 1

With reference to annotated PHOTO 1 above, which corresponds to the photograph in Ex. 1006 at 21, the FunLoom Kit was sold in the U.S. at least as early as 6/14/13 and included a loom device for allowing a user to connect a plurality of rubber bands to each other so as to create a linked item consisting of a

series of links, as well as rubber bands and a hook (*see* also *id.* at 26). The loom device included a base and a plurality of pins supported on (i.e., in contact with) the base (*see* PHOTO 1 above and *id*. at 21-26). Each of the pins includes a top flared portion for holding a link in a desired orientation, as well as an opening on one side thereof (see PHOTO 2 herein, which is an annotated portion of the photograph in Ex. 1006 at 22). Each pin also had a flared bottom portion and a mid portion positioned between the top and bottom potions (*see* PHOTO 2). Now referring to PHOTO 3 below (which is an annotated portion of the photograph in Ex. 1006 at 21), the pins were formed in three axially extending rows, each of which was "offset" or spaced relative to each other laterally (Offset Constr. 1). Moreover, each pin in each row was staggered axially relative to pins in an adjacent row (Offset Constr. 2).

PHOTO 2

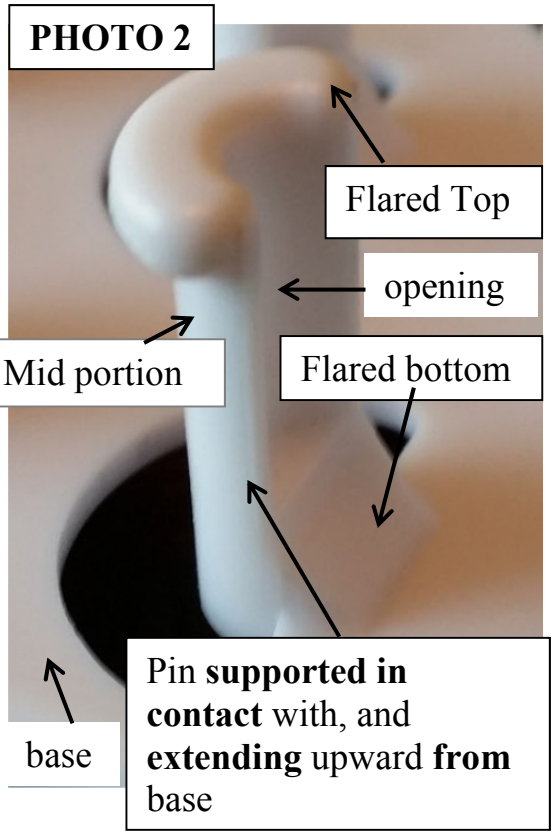
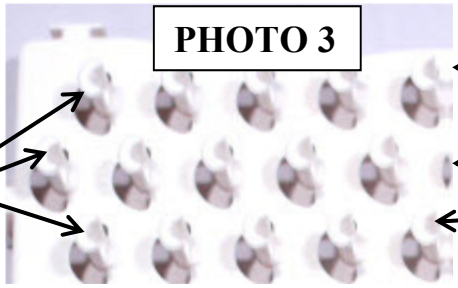


PHOTO 3



The FunLoom Kit anticipates each of the claims in the '420 Patent. The following claim charts conclusively establish the claims' unpatentability.

Claims 1 and 6. A device (C. 1) or kit (C. 6) for creating an item consisting of a series of links, the device comprising:	The preamble is not a claim limitation (*see* Section VIII.A). Also, the loom of the FunLoom Kit ("FunLoom loom") is adapted for use in creating an item consisting of a series of links. Ex. 1006 at 26.
a base; and (C. 6 recites "a base" later in the claim).	The FunLoom loom had a base. *See* PHOTO 1 above & Ex. 1006 at 21.
a plurality of pins supported on the base (C. 1), a plurality of pins supported relative to each other (C. 6)	The FunLoom loom included a plurality of pins affixed to the base and therefore supported on (i.e., in contact with) same.[3] *See* PHOTO 2; Ex. 1006 at 22, 24, 25. As placed on the base, the pins are supported relative to each other. *Id.*
wherein each of the plurality of pins includes a top portion for holding a link in a desired orientation and	Each of the pins in the FunLoom loom had a top portion for holding links in a desired orientation. *See* PHOTO 2 above; Ex. 1006 at 22, 23, 25, 26.
an opening on at least one side of each of the plurality of pins,	Each of the pins in the FunLoom loom had an opening on one side thereof. *See* PHOTO 2 above; Ex. 1006 at 22, 25, 26.
wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from the base (C. 6 states "a	The pins in the FunLoom loom were arranged in three rows of offset pins. That is, the pins were formed in three axially extending rows, each of which was "offset" or spaced relative to each other laterally (Offset Constr. 1). Moreover, each pin in each row was staggered axially relative to pins in an adjacent row (Offset Constr. 2). *See* PHOTO 3 above. The pins were also spaced apart and

[3] Given the Patent Owner's infringement claim against the FunLoom loom, Petitioner is applying the Patent Owner's interpretation of this claim limitation as reading on pins that are monolithically formed with a base for the sole purpose of the post-grant review requested herein.

base").	extended upward from the base. *See* PHOTOS 2-3 above; Ex. 1006 at 21-26.
Claims 2 and 9. The device as recited in claim 1 (C. 1) or the kit as recited in claim 6 (C. 9), wherein the opening comprises a slot extending from the top portion toward the base.	Each of the pins in the FunLoom loom included a slot extending from the top portion toward the base. *See* PHOTO 2 above; Ex. 1006 at 22, 23, 25, 26.
Claims 3 and 11. The device as recited in claim 1 (C. 1) or the kit as recited in claim 6 (C. 11), wherein the top portion comprises a flared portion for holding a link in place on at least one of the plurality of pins.	The top portion of each pin in the FunLoom loom is flared. *See* PHOTO 2 above; Ex. 1006 at 22-23, 25-26. Like the top flared pin portions of the '420 Pat., the top flared portions of the pins in the FunLoom loom prevented errant release of bands mounted on the pins and therefore were adapted for holding links in place on at least one of the pins. *See* the illustrated photos in Ex. 1006 at 26.
Claim 4 and 12. The device as recited in claim 1 (C. 4) or the kit as recited in claim 6 (C. 12), wherein each of the plurality of pins includes a bottom flared portion spaced apart from the top portion and a mid portion for holding a link.	Each of the pins in the FunLoom loom included an outwardly expanding (i.e., flared) bottom portion. *See* the bottom portion connecting the pin to the base in PHOTO 2 above and in Ex. 1006 at 22. The bottom portion in each FunLoom pin was spaced apart from its top portion. *Id.* A middle portion was provided in each of the FunLoom pins for holding links. *See id.*; Ex. 1006 at 22, 25, 26.
Claims 5 and 13**.** The device as recited in claim 1 (C. 5) or the kit as recited in claim 6 (C.13), wherein the base includes a mating feature for combining additional devices and additional pluralities of pins.	The base of the FunLoom loom included a tongue and groove for combining with additional FunLoom devices, each of which had a plurality of pins. *See* PHOTO 1 above; Ex. 1006 at 21, 24-26.
Claim 7**.** The kit as recited in claim 6, including a hook tool for manipulating a link held in a desired orientation on at least one of the plurality of pins.	FunLoom Kit came equipped with a hook for grasping and moving ends of links held in a desired orientation on at least one of the pins. *See* PHOTO 1 above; Ex. 1006 at 26 ("Take your hook and grab the second rubber band, pull it up though the next band and hook it onto the next pin. See pictures. Repeat until you have hooked all your rubber bands").
Claim 10**.** The kit as recited in claim 6,	The FunLoom loom included an

wherein the opening comprises an access groove disposed along at least one side of each of the plurality of pins.	access groove disposed along at least one side of each of the pins. *See id.* at 22, 23, 25, 26; PHOTO 2 above.

Claim 14. A method of assembling a kit for creating a linked item comprising the steps of:	The FunLoom Kit was sold as a kit for creating a linked item. Accordingly, the FunLoom Kit was assembled with a method for assembling a kit having the following steps.
supporting a plurality of pins to define a desired spatial relationship between pins;	The pins in the FunLoom were supported on the base in a desired special relationship to one another. *See* PHOTO 1; Ex. 1006 at 21-26.
providing an access opening on each of the plurality of pins to provide access for a hook tool to grasp a link supported on one of the plurality of pins;	An access opening is provided on each of the pins of Fun Loom loom. The access opening on each pin provided access for a hook tool to grasp a link supported on one of the pins. *See* PHOTO 2 above; Ex. 1006 at 21-26.
providing a plurality of links for assembly to the plurality of pins according to a desired pattern; and	Rubber bands were provided in the FunLoom Kit. *See* PHOTO 1 above. The bands were adapted to be assembled to the pins of the FunLoom loom in a desired pattern. *See* Ex. 1006 at 21, 25, 26.
providing a plurality of connectors for holding links together once a desired pattern is completed.	Clips were also provided in the FunLoom kit. Ex. 1006 at 2, ¶6 (stating "clasps for connecting ends of rubber bands together after forming a linked item accompanied the [FunLoom] kit") and *id.* at 26 (an instruction manual accompanying the FunLoom Kit and stating "Slide a C-Clasp onto the last rubber band that you hooked . . . Slide the rubber band at the other end into the C-Clasp to hold your bracelet together").

Claim 15. The method as recited in claim 14, including the step of providing a hook tool for insertion into the access opening for manipulating a link supported on one of the plurality of pins.	*See* Chart for Claim 7 above. A hook tool was provided in the FunLoom Kit for grasping and moving ends of links held in a desired orientation on at least one of the pins. *Id.* at 26.

Claim 16.	All elements of Claim 16 are recited in Claim 5 (*see* Section VII above). All such elements are therefore disclosed in FunLoom Kit.

As seen above, all of the elements recited in each of the Challenged Claims were included in, and used in assembling, the Fun-Loom Kit, which was sold in the

U.S. at least as early as 6/14/13. Accordingly, all Challenged Claims are unpatentable over the Fun Loom Kit and its assembly method under AIA §102(a).

The FunLoom Kit is also described in detail in U.S. Appln No. 14/286,079 filed on 5/23/14 by inventor Steven Verona (Ex. 1006 at 3, 64-103, "the Verona '079 App."), which claims priority to U.S. Appln. No. 61/827,178 filed 5/24/13 (*Id.* at 3, 6-19, "the Verona '178 App."). Since the Verona '178 App. was filed prior to the 7/10/13 effective filing date of the '420 Pat. and since the FunLoom Kit is virtually identical to the devices disclosed in the Verona '079 and '178 Apps., for the reasons discussed above, the Challenged Claims are also anticipated by the Verona '079 and/or '178 Apps. under AIA §102(a).

C. <u>Claims 1-7 and 9-16 Are Unpatentable Based On Gustin</u>

Gustin (Ex. 1017) issued on 3/24/09 and constitutes prior art under AIA §102(a). Gustin discloses a hand knitting loom 110 and a method of using same. *Id.* at 2:65-66. With reference to FIGS. 1 and 3 (reproduced herein and below), the loom 110 includes a base structure 100 and a plurality of pegs 1-24 mounted thereon. *Id.* at 3:31-36. As illustrated in FIG. 1, each of the pegs 1-24 is supported on and extends upward from the base structure 100. More particularly, Gustin teaches that the pegs 1-24 can be made as part of the base

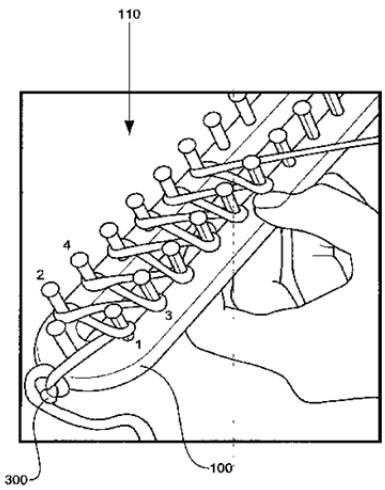
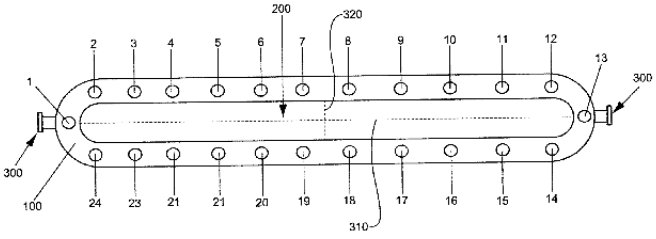


FIG. 1

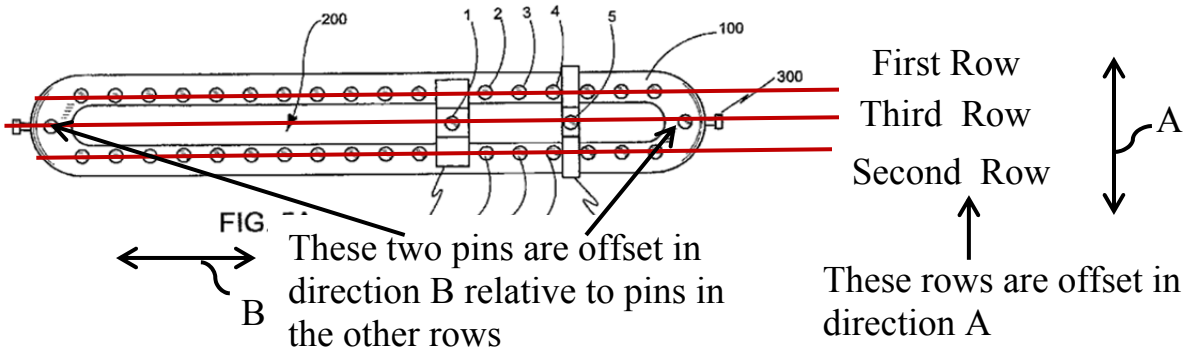
structure 100 or can be made separately from the base structure 100. *Id.* at 3:44-50. Gustin states that "the knitting pegs may have a groove or channel starting at or near the top end of the knitting peg and running to the bottom end or near the bottom end". *Id*. at 2:61-64. Since grooves and channels are commonly provided in knitting board pins to allow a hook to access and grasp links held on corresponding pins, a skilled person would readily recognize that the groove or channel mentioned in Gustin is provided for that purpose. *See* Ex. 1013 at ¶109.

Referring to FIG. 3 herein, two rows of knitting pegs are formed by pegs 2-12 and 14-24. Ex. 1017 at 3:36-38. The pegs 1 and 13 are positioned at the apex of a long axis 310 of orifice 200 between the two outer rows of pegs 2-12 and 14-24 (first and second rows). *Id.* Since the pegs 1 and 13 align with one another along the long axis 310, they form a third (i.e., middle) row of pegs positioned between the outer rows. *See* the annotated FIG. 3 below. Since each of the three rows of pegs is spaced laterally from each other, the rows constitute "rows of offset pins" under Offset Constr. 1 of that term. Moreover, as clearly illustrated in FIG. 3 below, the pegs 1 and 13 are offset (staggered or set off) in an axial direction with respect to the pegs 2-12 and 14-24 in the two outer rows. Accordingly, the pegs 1-

FIG. 3



24 read on the "rows of offset pins" claim limitation under Offset Constr. 2.



Now referring to FIGS. 5B-5C (FIG. 5B reproduced herein), Gustin also teaches that the loom 100 can be provided with cross-bridges 400 for providing additional rows of knitting pegs 501, 505. *Id*. at 4:24-27 and 4:49-54. The cross-bridges 400 may be provided with appendages 401 for reception into receiving holes, which normally receive the pegs 2-12, 14-24. *Id.* at 4:30-35, 43-47. Alternatively, the cross-bridges 400 may be provided with wings 402 adapted to clasp, or be clasped by, the base structure 100. *Id.* at 4:36-38, 43-45.

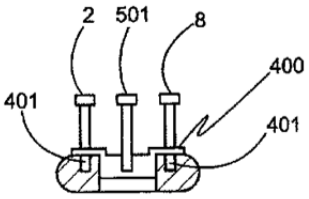
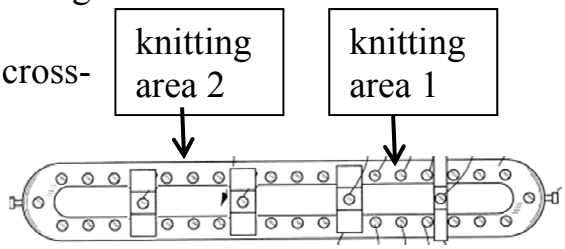


FIG. 5B

Gustin teaches that the cross-bridges 400 are provided so as to produce a circular knit having a diameter smaller than the effective diameter of the loom 110. *Id.* at 4:39-42. That is, the cross-bridges 400 provide a smaller knitting area on the loom 110, as indicted by annotated FIG. 5A below. Gustin teaches that one or more of additional knitting pegs may be provided by way of the cross-bridges 400 (*see id.* at 4:24-27) and does not limit the number of additional knitting pegs to just

two. In fact, when the cross-bridges 400 are provided on the right side of the loom 110 as illustrated in FIG. 5A, the left side of the loom 110 has sufficient room to accommodate a second knitting area, which can be formed by placing two additional cross-bridges 400 thereon (*see* a modified view of FIG. 5A herein with two additional cross-bridges). Accordingly, Gustin teaches that the base can be provided with a mounting feature (e.g., mounting holes for receiving appendages 401 of the cross-bridges 400) for combining additional devices (i.e., the cross-bridges 400) and additional pluralities of pins (i.e., the additional pegs 501, 505 provided on four or more cross-bridges 400 on the loom 110 of Gustin). Ex. 1013 at ¶95.



1. <u>Claims 1-3, 5-7, 9-11, 13 and 16 Are Anticipated By Gustin</u>

The following charts show that Gustin discloses all of the elements recited in Claims 1-3, 5-7, 9-11, 13 and 16, which are unpatentable under AIA §102(a).

Claims 1 and 6. A device (C. 1) or kit (C. 6) for creating an item consisting of a series of links, the device comprising:	As discussed in Section VIII.A, the preamble does not constitute a claim limitation. Nevertheless, Gustin discloses a hand knitting loom for use in creating a knitted item, which inherently consists of a series of links. Ex. 1013 at ¶109; Ex. 1017 at 1:13-14.
a base; and (C. 6 recites "a base" at the end of the claim).	The loom in Gustin (hereinafter "the Gustin loom") includes a base structure 100. *See*, e.g., Ex. 1017 at 2:66-67, and FIGS. 1 and 3.
a plurality of pins supported	The Gustin loom includes knitting pegs (i.e., pins) 1-24. As illustrated in FIGS. 1 and 2A, the pegs 1-24 are supported on

on the base (C. 1), a plurality of pins supported relative to each other (C. 6)	the base structure 100 such that they are in contact with the base structure 100. Moreover, pegs 1-24 can be made as part of the base structure 100. *See,* e.g., *id*. at 3:44-45. Accordingly, Gustin discloses this limitation of Claim 1. Moreover, when pegs 1-24 are supported on the base structure 100, they are supported relative to each other, thereby satisfying the limitation of Claim 6.
wherein each of the plurality of pins includes a top portion for holding a link in a desired orientation and	Each of the pegs 1-24 in Gustin includes an enlarged top portion for holding a link in a desired orientation. *See* FIG. 1.
an opening on at least one side of each of the plurality of pins,	Each peg 1-24 in Gustin may be provided with a "groove or channel starting at or near the top end of the knitting pegs and running to the bottom end or near the bottom end of the knitting peg". *Id*. at 2:61-64. When provided, the groove is positioned on at least one side of each of the plurality of pins.
wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from the base (C. 6 states "a base").	The pegs 1-24 are arranged in three rows of offset pegs (see the discussion above on pages 57-58). The pegs 1-24 are spaced apart and extend upward from the base structure 100. *See,* e.g., FIG. 1.
Claims 2 and 9. The device as recited in claim 1 (C. 1) or the kit as recited in claim 6 (C. 9), wherein the opening comprises a slot extending from the top portion toward the base. ***Claim 10*.** The kit as recited in claim 6, wherein the opening comprises an access groove disposed along at least one side of each of the plurality of pins.	Each of the pegs 1-24 in Gustin may be provided with "groove or channel starting at or near the top end of the knitting pegs and running to the bottom end or near the bottom end of the knitting peg". *Id*. at 2:61-64. The grooves are provided for access by a hook. *See* Ex. 1013 at ¶109.
Claims 3 and 11. The device as recited in claim 1 (C. 1) or the kit as recited in claim 6 (C. 11), wherein the top portion comprises a flared portion for holding a link in place on at least one of the plurality of pins.	Each of the pegs 1-24 in Gustin has an enlarged (i.e., flared) top portion for holding a link in a place on at least one of the pegs 1-24. *See*, e.g., FIG. 1.
***Claims 5 and 13*.** The device as recited in claim 1 (C. 5) or the kit as recited in claim 6 (C.13), wherein the base includes a mating feature for	Gustin discloses that two or more clips (e.g., four as shown in modified FIG. 5A of Gustin above) each having a peg thereon can be mounted on the base of the loom. In order to accommodate the placement of the clips on the

combining additional devices and additional pluralities of pins.	base, openings are provided in the base for receiving pins depending from the clips. Ex. 1017 at 4:30-35; 4:43-47. Accordingly, Gustin's base structure includes this mating feature. *See* above pgs. 58-59.
Claim 7. The kit as recited in claim 6, including a hook tool for manipulating a link held in a desired orientation on at least one of the plurality of pins.	Gustin discloses a hook tool in FIGS. 2A and 2C. The hook tool is inherently used to manipulate a link held in a desired orientation on at least one of the plurality of pegs. Ex. 1013 at ¶109.
Claim 16.	All elements of Claim 16 are recited in Claim 5 (see Section VII above). All such elements are therefore disclosed in Gustin.

As seen above, all elements of Claims 1-3, 5-7, 9-11, 13 and 16 are disclosed in Gustin, which renders these claims unpatentable under AIA §102(a).

2. <u>Claims 14 and 15 Are Obvious Over Gustin In View of Ng</u>

The following chart compares the elements of Claim 14 to Gustin.

Claim 14. A method of assembling a kit for creating a linked item comprising the steps of:	Gustin discloses a method for assembling a kit for creating a knitted (i.e., linked) item. Ex. 1017 at 1:13-14.
supporting a plurality of pins to define a desired spatial relationship between pins;	The pegs 1-24 in Gustin could be removable from the base structure 100. *Id.* at 3:49-50. Accordingly, when pegs 1-24 are not attached to the base structure 100, they need to be placed onto the base structure 100, thereby supporting the pegs 1-24 to define a desired spatial relationship between the pegs.
providing an access opening on each of the plurality of pins to provide access for a hook tool to grasp a link supported on one of the plurality of pins;	Gustin teaches that "the knitting pegs may have a groove or channel starting at or near the top end of the knitting peg and running to the bottom end or near the bottom end of the knitting peg". *Id.*at 2:61-64. These channels or grooves are provided to allow access to a hook tool to grasp a link supported on one of the plurality of pegs. Ex. 1013 at ¶109.
providing a plurality of links for assembly to the plurality of pins according to a desired pattern; and	*See* below.

providing a plurality of connectors for holding links together once a desired pattern is completed.	*See* below.

Gustin discloses all of the elements of Claim 14, except for the last two steps, namely: "providing a plurality of links . . ." and "providing a plurality of connectors". However, both of these steps are taught by Ng (*see* Ex. 1016), which is a USPTO publication of the '638 App. and therefore teaches a device and method identical to those of the '420 Pat. For instance, Ng discloses a method of forming Brunnian links by assembling a plurality of links onto a loom according to a desired pattern (*see id.* at ¶0042) and then holding the links together with one or more connectors once a desired pattern is completed (*see id.* at ¶0045 and FIGS. 15-16). Because Gustin and Ng are both used in manually making linked structures from fibers, they belong to the same technical field. Ex. 1013 at. ¶¶102-106. The inventor in Ng also recognized that the Ng device belongs to the same field. Ex. 1016 at ¶¶0002-0003 (stating that Ng's invention relates to the creation of "a linked wearable item" and that "kits that include materials for making a uniquely colored bracelets or necklace have always enjoyed some popularity"). In such circumstances, a skilled person would have been motivated to look for looms that are simpler in design and/or cost less to manufacture than the device in Ng (hereinafter "the Ng device"). Ex. 1013 at ¶¶110-112. Gustin certainly has a construction that is simpler than the Ng device and would therefore cost less to manufacture. *Id.* at ¶112. Moreover, because the loom in Gustin has a pin

arrangement similar to that of Ng, it is readily interchangeable with same and is readily adaptable for use in conjunction with the bands and clips disclosed in Ng. Ex. 1013 at ¶¶102, 106. Accordingly, it would have been obvious to a skilled person to use the Gustin loom to make Brunnian links with the use of the links and connectors disclosed in Ng. Accordingly, Claim 14 is obvious over Gustin in view of Ng. *See* Ex. 1013 at ¶¶108-112.

Claim 15 (dependent on Claim 14) recites "the step of providing a hook tool for insertion into the access opening for manipulating a link supported on one of the plurality of pins". As discussed above, Gustin discloses the hook tool required by Claim 15. Thus, Claim 15 is obvious over Gustin in view of Ng. *Id.* at ¶113.

3. <u>Claims 4 and 12 Are Obvious Over Gustin In View Of Pugh or Ng</u>

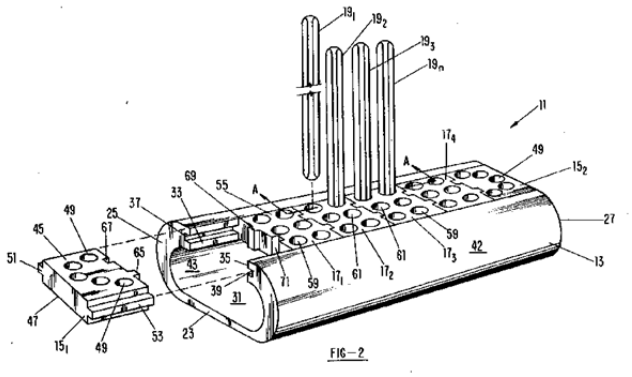
Claims 4 and 12, which depend from Claims 1 and 6, respectively, require "each of the plurality of pins includes a bottom flared portion spaced apart from the top flared portion and a mid portion for holding a link". While each of the pins in Gustin has a mid portion for holding a link, (*see* Ex. 1017 at FIG. 1) it does not include a bottom flared portion as required by Claim 5. However, Pugh (Ex. 1018) discloses a pin having a bottom flared portion (*see* Ex. 1018, the sloping surfaces 11 in FIGS. 1 and 2; *see* also *id.* at 2:46-52) for guiding a hook into a groove 7 formed therein. Given the disclosure of a groove or channel formed on each pin in Gustin, it would have been obvious to provide Gustin's pins with the bottom flared

portions disclosed in Pugh so as to facilitate insertion of a hook into the grooves formed in the Gustin pins. In such circumstances, Claims 4 and 12 are rendered obvious over Gustin in view of Pugh under §103(a). Ex. 1013 at ¶¶115-116.

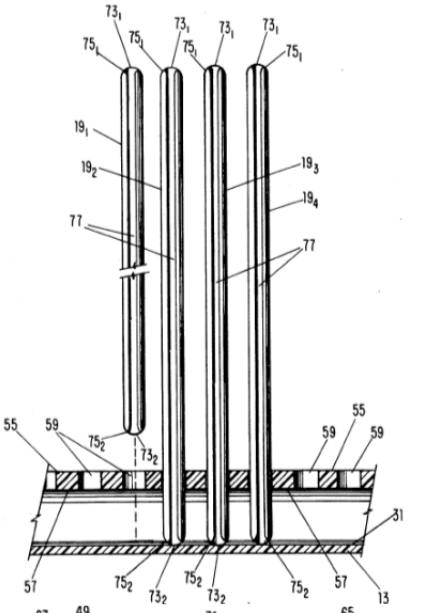
Alternatively, Ng discloses a bottom portion that is flared outward. *See* Ex. 1016 at ¶0038 & FIG. 6. Accordingly, it would have been obvious to provide the pegs in Gustin with a flared bottom portion, as disclosed in Ng, to prevent links from slipping down toward the base. Accordingly, Claims 4 and 12 are obvious and unpatentable over Gustin in view of Ng under §103(a). Ex. 1013 at ¶114.

D. <u>Claims 1-7 and 9-16 Are Anticipated By Macbain</u>

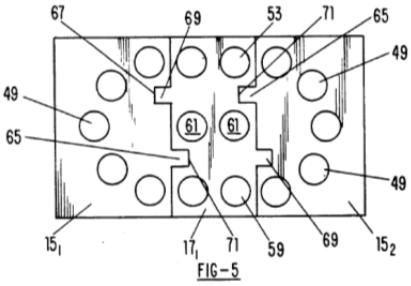
With reference to FIGS. 2-3 (reproduced herein), Macbain (Ex. 1019) discloses a weaving apparatus including a loom 11 having a base 13 and a plurality of plates 15, 17 removably mounted on the base 13 and having a plurality of through holes 49, 59, 61. The weaving apparatus also includes a plurality of loom fingers 19 adapted to be mounted to the plates 15, 17 through the holes 49, 59, 61. Each of the loom fingers 19 has an elongated channel 77 running the entire length thereof for receiving a hook 105. As illustrated in FIG. 2 (*see* also FIGS. 3 and 7A-8), each opposite end of the elongated channel 77 is flared outwardly, presumably to facilitate entry of a



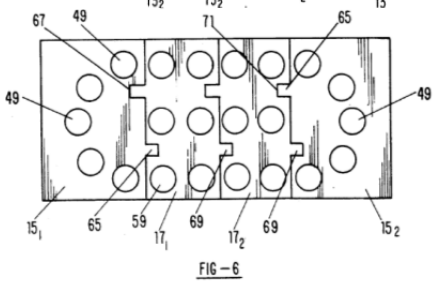
hook 105 into the elongated channel 77. Accordingly, when mounted on the plates 15, 17 and the base 13, the opposite end portions of the loom finger 19 constitute top and bottom portions, each of which has a flared portion. Each of the loom fingers 19 also has opposing ends $73_{1,}$ $73_{2,}$ with tapered portions 75_1, 75_2, respectively (*see*, e.g., FIG. 3, reproduced herein). Each of these tapered portions 75_1, 75_2, in effect, has a flared construction when viewed from its tip toward the opposite end of the loom finger 19, forming another top flared portion on its corresponding loom finger 19.



As described in Ex. 1019 at 5:11-20, the plates 15, 17 are assembled with the base 13 as illustrated in FIGS. 2 and 3. Macbain teaches that the number of plates 15, 17 held by the base 13 can be varied to form a desired hole pattern (e.g., circle, oval, partial oval, semi-circle or straight line, as shown in FIGS. 4-6). *See* Ex. 1019 at 4:36-47. After mounting the plates 15, 17 on the base 13, a desired number of loom fingers $19_{1,2,3,4...}$ are slidably received in the holes 49, 59 and/or 61 of the plates 15, 17.



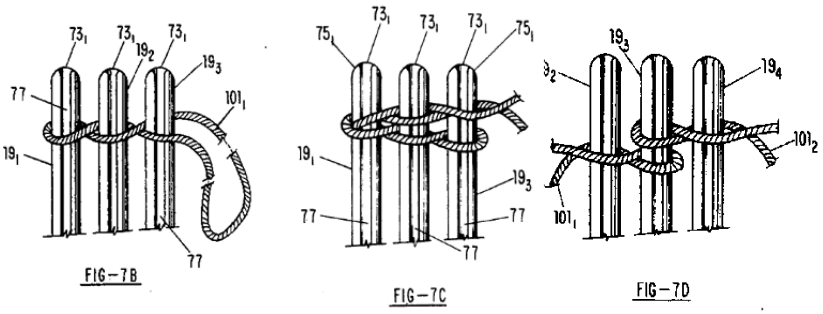
FIG–5



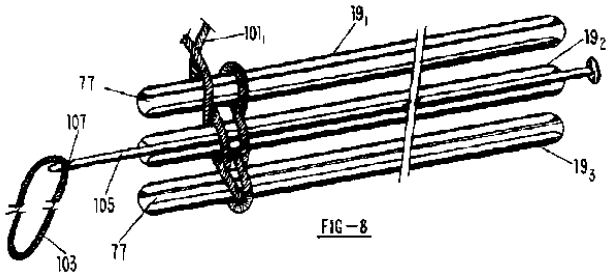
FIG–6

The Macbain apparatus is used to weave closed loop wefts (i.e., bands).

Referring to FIGS. 7B-D (reproduced herein), closed loop wefts 101_1, 101_2 are twined on loom fingers 19 such that the closed loop wefts 101_1, 101_2 are weaved onto a common loom finger 19_3. *Id*. at 5:30-45, and FIG. 7B-7D.



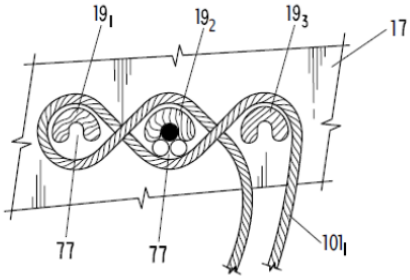
After the weft weaving has been completed as illustrated in FIGS. 7B-7D above, a conventional hook 105 having a hook portion 107 is then inserted into the channel 77 of one of the loom fingers (*see* the loom finger 19_2 in FIG. 8) from one end of the loom finger 19_2 and is then moved toward an opposite end of the loom finger 19_2. *See id*. FIG. 8. A warp thread 103 (shown in FIG. 8 as a band, *see* also *id.* at 5:24-27 stating "closed loop material") is grasped by the hook portion 107 and pulled through the channel 77 of the loom finger 19_2. *See id*. at 5:62-68.



As the warp thread 103 is pulled through the loom finger 19_2 by the hook 105, it would inherently engage the closed loop weft 101_1, and the hook 105 would thereby cause the weft 101_1 (i.e., a link), which is supported on the loom fingers 19_1-19_3, to move and hence "manipulate" the same. This engagement would

necessarily occur due to the manner in which the warp 103 is pulled though the loom finger 19_2 by hook 105, as well as the physical dimensions of the relevant parts of Macbain's loom, namely, the depth of the channel 77 of the loom finger 19_2 and the diameters of the hook 105 and the warp 103, which is shown in FIG. 8 in the form of a band (i.e., a closed loop having a pair of opposed arcuate ends and a pair of opposed legs extending between the arcuate ends). *See* Ex. 1013 at ¶139.

With reference to the modified view of FIG. 7A herein, because the warp 103 is in the form of a band (see Ex. 1019 at FIG. 8), two strands of the warp 103 would have to pass through the weft 101_1 when the warp 103 is pulled through the loom finger 19_2 by the hook 105. In fact, at the point where the hook portion 107 of the hook 105 reaches the weft 101_1, the hook portion 107 would have to pass through the weft 101_1 together with the two warp strands. At such point, the hook 105 and its hook portion 107 completely occupy the channel 77 (see FIG. 8), thereby causing both of the warp strands to be positioned outside the channel 77. The modified view of FIG. 7A above illustrates the hook portion 107 (see the black-solid circle in FIG. 7A) and the two warp strands of the warp 103 (see the two white circles in FIG. 7A) as they pass through the weft 101_1. It should be noted that the weft 101_1 illustrated in FIG. 7A is wrapped loosely around the loom fingers 19_1, 19_2, 19_3 such



FIG–7A

that it is spaced from their associated channels 77. However, FIG. 7A illustrates the weft 101_1 prior to it being completely wrapped around the loom fingers 19_1, 19_2, 19_3. Once the wrapped weft 101_1 is tightened around the loom fingers 19_1, 19_2, 19_3 as illustrated in FIGS. 7C and 8, the loom fingers 19_1-19_3 are roped between the weft 101_1 such that the weft 101_1 is positioned directly against the channels 77. With the weft 101_1 in such a position, when the two strands of the warp 103 and the hook portion 107 of the hook 105 pass through the weft 101_1 simultaneously, the warp strands would necessarily engage the weft 101_1 and cause same to move, as shown in the modified view of FIG. 7A above. *See* Ex. 1013 at ¶140.

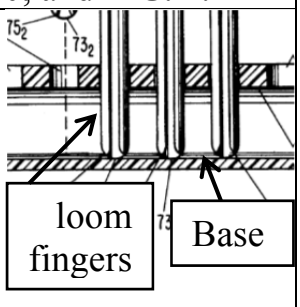
After the hook portion 107 passes through the weft 101_1, there would be continued engagement between the weft 101_1 and the warp 103 as the two strands of the warp 103 are pulled through the weft 101_1. As illustrated in FIG. 7A (see the modified version above), the depth of the channels 77 is substantially identical to the diameter of the warp 103. As a result, the channel 77 of the loom finger 19_2 is only large enough to receive, at most, one of the two warp strands as the warp 103 is pulled through the weft 101_1. In such circumstances, only one of the two warp strands (hereinafter "the 1st strand") could possibly pass through the channel 77 of the loom finger 19_2. The other strand of the warp 103 (hereinafter "the 2nd strand") must pass through the weft 101_1 while positioned outside the channel 77. When the weft 101_1 is roped (i.e., tightly wrapped) around the loom fingers 19_1, 19_2, 19_3 such

that the weft 101_1 is positioned directly against the loom fingers' channels 77 (as illustrated in FIGS. 7C and 8), at least the 2nd strand of the warp 103 would continue to be in engagement with the weft 101_1. For the foregoing reasons, because the warp 103 in Macbain would inherently engage the weft 101_1 and cause same to move while being pulled through the loom finger 19_2, the hook 105 "manipulates" the weft 101_1, which is supported on the loom fingers 19_1-19_3. *See* Ex. 1013 at ¶141.

1. <u>Claims 1-7 and 9-16 Are Anticipated By Macbain</u>

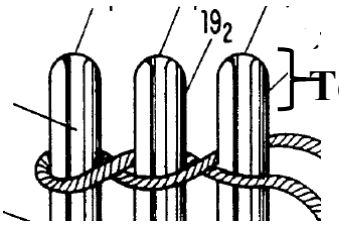
The following charts demonstrate that Claims 1-7 and 9-16 are anticipated by Macbain and hence are unpatentable under AIA §102(a).

<table>
<tr><td>Claims 1 and 6. A device (C. 1) or kit (C. 6) for creating an item consisting of a series of links, the device comprising:</td><td colspan="2">As discussed in Section VIII.A, the preamble does not constitute a claim limitation. Nevertheless, Macbain discloses a weaving apparatus for use in creating a weaved item (see, e.g., Ex. 1019 at 2:42), which consists of a series of links.</td></tr>
<tr><td colspan="2">a base; and
(C. 6 recites "a base" at the end of the claim).</td><td>The weaving apparatus in Macbain includes a loom 11 ("Macbain loom 11") having a base 13. See, e.g., id. at 3:59-60, and FIG. 2.</td></tr>
<tr><td>a plurality of pins supported on the base (C. 1),

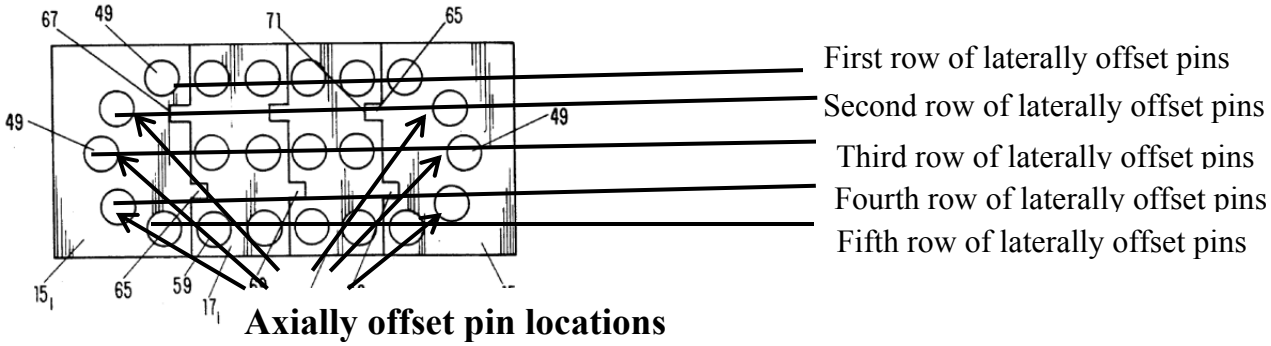
a plurality of pins supported relative to each other (C. 6)</td><td colspan="2">The Macbain loom 11 is provided with a plurality of plates 15, 17 and a plurality of loom fingers (i.e., pins) 19. See, e.g., id. at 3:61-62, and FIG. 2. When inserted into the plates 15, 17, the ends 73_2 of the loom fingers 19 touch and are supported by an interior loom supporting surface 31 of the base 13. See id. at 3:66-67 & 5:12-16. See a portion of FIG. 3 reproduced herein.
 
</td></tr>
<tr><td colspan="2">wherein each of the plurality of</td><td>Each of the loom fingers 19 in Macbain</td></tr>
</table>

pins includes a top portion for holding a link in a desired orientation and	includes a top portion (i.e., a portion adjacent a top) for holding a link in a desired orientation. *See* also discussion following this chart.
an opening on at least one side of each of the plurality of pins,	Each of the loom fingers 19 has a channel 77 on a side thereof. *See id.* at FIG. 3.
wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from the base (C. 6 states "a base").	*See* below.

Regarding the limitation "each of . . . pins includes a top portion for holding a link in a desired orientation", Petitioner



additionally notes that the loom fingers 19 in Macbain have top portions (i.e., portions located adjacent top ends of the loom fingers 19), as indicated by the above annotated portion of FIG. 7B in Macbain. In the '218 IPR, the Board held that the term "for holding a link in a desired orientation" included in Claim 1 of the '565 Pat. was merely an intended use and that to satisfy same, a prior art reference only needed to disclose a structure that was capable of performing the recited function. *See* Ex. 1010 at 18. Like in the '218 IPR, it is respectfully submitted that the claim term "for holding a link in a desired orientation" in the '420 Patent merely recites an intended purpose or use. Since the top portion of each loom finger 19 includes a cylindrically shaped portion (i.e., the area immediately below the round tip) (*see* the annotated FIG. 7B above), it is adapted to hold a link in a desired orientation. Accordingly, this limitation is satisfied by Macbain.

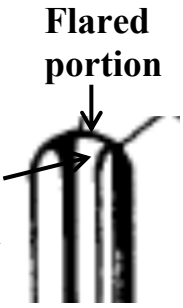


Axially offset pin locations

With respect to the limitation "the plurality of pins comprises rows of offset pins . . .", Petitioner notes that Macbain discloses this limitation as construed above. More particularly, Macbain specifically teaches that while only four loom fingers 19 are illustrated in FIGS. 2 and 3, "a closed oval can be formed utilizing all of openings 49 and 59." *Id.* at 5:16-20. When this pin pattern is formed, five rows of pins would be formed, as illustrated above in annotated FIG. 6 above. More particularly, the five rows of loom fingers 19 are spaced from each other laterally, thereby satisfying Offset Constr. 1 of the term "offset pins". Also, the loom fingers 19 placed in the openings 49 in the second, third and fourth rows (indicated by the arrows above) are axially staggered with the loom fingers 19 placed in other rows, thereby meeting Offset Constr. 2 of the term "offset pins". Each of the loom fingers is also spaced from each other and extends upward from the base.

In the foregoing circumstances, Petitioner respectfully submits that Macbain discloses all of the elements recited in Claims 1 and 6, which are therefore unpatentable under AIA 102(a). The rest of the claims are discussed below.

Claims 2 and 9. The device as	*See* Claims 1 and 6. The apparatus in

recited in claim 1 (C. 1) or the kit as recited in claim 6 (C. 9), wherein the opening comprises a slot extending from the top portion toward the base. ***Claim 10.*** The kit as recited in claim 6, wherein the opening comprises an access groove disposed along at least one side of each of the plurality of pins.	Macbain includes a hook 105 that can be extended through the channels 77 of the loom fingers 19 to capture an end of a warp. *See*, e.g., Ex. 1019 at 5:62-66 and FIG. 8. The channels 77 extend from their corresponding top portion towards the opposite side (i.e., the base) and is disposed along at least one side of each of the plurality of pins 19.
Claims 3 and 11. The device as recited in claim 1 (C. 1) or the kit as recited in claim 6 (C. 11), wherein the top portion comprises a flared portion for holding a link in place on at least one of the plurality of pins.	See Claims 1 and 6. Each of the loom fingers 19 has the following two features, each of which independently correspond to this claim limitation. • Each of the loom fingers 19 has a channel 77 having outwardly flared portions at opposing ends of the loom finger 19. See the portion of FIG. 3 reproduced herein. • Each of the loom fingers 19 has tapered portions 75_1, 75_2 at opposing ends 73_1, 73_2, respectively, thereof. See, e.g., *id*. at 4:49-50, and FIGS. 3, 7B-7C. Each of the tapered portions 75_1, 75_2 extends axially outwardly from its corresponding loom finger 19 (see the portion of FIG. 3 herein) and therefore constitutes a "top flared portion", as construed above in Section VIII.E. 

Petitioner notes that the functional term "holding a link in place on at least one of the plurality of pins" in Claims 3 & 11 is merely an intended use. This term states that the link is placed on at least one of the pins, rather than on the flared portion itself. As discussed in the chart for Claim 1 above, the loom fingers 19 in Macbain have top portions, each including a cylindrical portion of the loom finger 19 below the rounded end. The cylindrical portion is adapted for holding a link thereon. Thus, all elements recited in Claims 3 and 11 are disclosed in Macbain.

Claims 4 and 12. The device as recited in claim 1 (C. 4) or the kit as recited in claim 6 (C. 12), wherein each of the plurality of pins includes a bottom flared portion spaced apart from the top portion and a mid portion for holding a link.	As indicated in the claim chart and discussion above with respect to Claims 3 and 11, Macbain discloses that each of the loom fingers 19 includes a bottom flared portion 75_2 at end 73_2 that is spaced apart from a top portion 75_1 at end 73_1 (see, e.g., FIG. 3 of Macbain), as well as a mid portion for holding a link (see, e.g., Ex. 1019 at FIGS. 7B-7D and 8).
Claims 5 and 13. The device as recited in claim 1 (C. 5) or the kit as recited in claim 6 (C.13), wherein the base includes a mating feature for combining additional devices and additional pluralities of pins.	*See* Claims 1 and 6. Macbain discloses that "long plates could be used to link two or more base members 13", *see id*. at 4:46-47, which would include pluralities of additional loom fingers. The base 13 includes grooves 37, 39 for engaging plates. *Id.* at 4:7-10.
Claim 7. The kit as recited in claim 6, including a hook tool for manipulating a link held in a desired orientation on at least one of the plurality of pins.	*See* Claim 6. The apparatus in Macbain includes a hook 105 that can extend through the channels 77 of the loom fingers 19 to capture an end of a warp. *See*, e.g., *id*. at 5:62-66, and FIG. 8. As discussed on pages 66-69 above, when the hook 105 pulls the warp through the loom finger 19, it "manipulates" a link held in a desired orientation on at least one of the plurality of loom fingers (i.e., the weft held on the loom fingers). *See* also discussion below.
Claim 14. A method of assembling a kit for creating a linked item comprising the steps of:	Macbain discloses a method of assembling a kit for creating a knitted item (i.e., a linked item). *Id.* at 2:42.
supporting a plurality of pins to define a desired spatial relationship between pins;	Loom fingers 19 are inserted into openings in the plates 15, 17 to define a desired spatial relationship between the fingers 19. *Id.* at FIG. 2.
providing an access opening on each of the plurality of pins to provide access for a hook tool to grasp a link supported on one of the plurality of pins;	A channel 77 is provided on each of the loom fingers 19 in Macbain to allow a hook 105 to extend therethrough to capture an end of a warp. *See*, e.g., *id*. at 5:62-66, and FIG. 8. *See* also discussion below.
providing a plurality of links for assembly to the plurality of pins according to a desired pattern; and	Wefts in the form of loops 101 are provided in Macbain for assembly to the loom fingers 19 according to a desired pattern. *Id.* at 5:30-43, FIG. 7D.

providing a plurality of connectors for holding links together once a desired pattern is completed.	Wrap threads 103 (i.e., connectors) are pulled through wefts 101_1, 101_2 after the wefts have been placed and looped around in a desired manner. When pulled though the wefts 101_1, 101_2, the warps 103 would hold the wefts 101_1, 101_2 (i.e., links) together.
Claim 15. The method as recited in claim 14, including the step of providing a hook tool for insertion into the access opening for manipulating a link supported on one of the plurality of pins.	*See* Claim 14. The Macbain loom includes a hook 105 that can extend through the channels 77 of the loom fingers 19 to capture an end of a warp. *See*, e.g., Ex. 1019 at 5:62-66, and FIG. 8. As discussed on pages 66-69 above, when the hook 105 pulls the warp through the loom finger 19, it "manipulates" a link supported on one of the plurality of loom fingers (i.e., the weft held on the loom fingers). *See* also discussion below.
Claim 16.	All elements of Claim 16 are recited in Claim 5 (*see* Section VII above). All such elements are therefore disclosed in Macbain.

Petitioner submits that the term "for a hook tool to grasp a link . . ." in the "providing an access opening" step of Claim 14 and the term "for manipulating a link . . ." in Claims 7 and 15 each merely recite an intended use. Thus, to satisfy these terms, Macbain only needs to disclose elements capable of performing the recited functions. The hook disclosed in Macbain is capable of moving through the channels in the loom fingers and grasping or manipulating a weft supported on the loom fingers. Accordingly, the channels and hook in Macbain read on these terms.

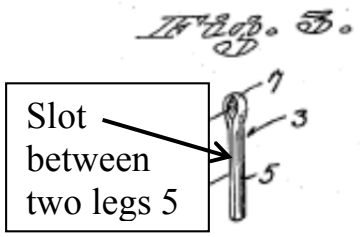
For the sole purpose of conducting a prior art analysis herein, the term "for manipulating a link" in Claims 7 and 14 is construed to mean "grasping" and/or "moving" a link. On pages 66-69 above, Petitioner explained how the hook in Macbain causes the weft held on the loom fingers to move and thereby

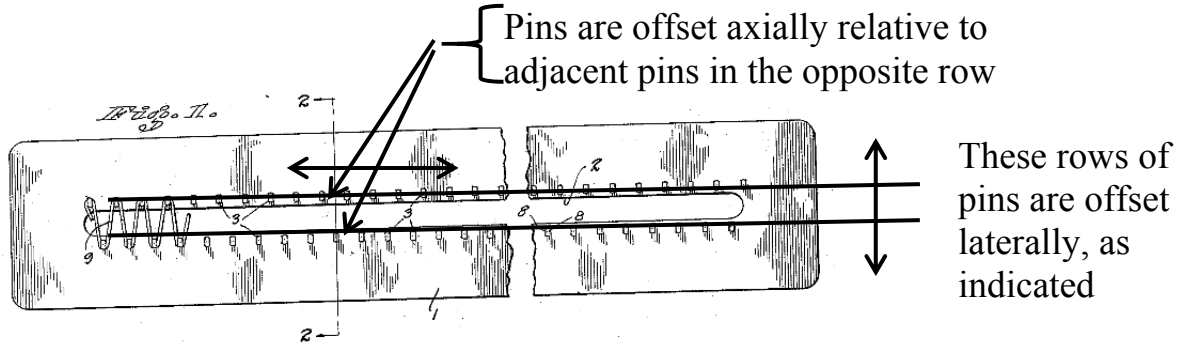
"manipulate" same. This provides another basis for the conclusion that the term "for manipulating a link" is satisfied by Macbain.

Thus, all Challenged Claims are unpatentable over Macbain under §102(a).

E. <u>Claims 1-7 and 9-16 Are Unpatentable Over La Croix</u>

La Croix (Ex. 1015) discloses a knitting board 1 having two rows of pins 3 (*see* annotated FIG. 1 below). As shown in FIGS. 1 and 2, each pin 3 is received in a recess formed in the board 1 (*see* Ex. 1015 at 1:43-44) and is therefore supported on (i.e., in contact with) the board 1. Each of the pins 3 also extends upward from the board 1 (*see id.* at FIG. 2) and includes a round head 7 (i.e., a flared top) having an eyelet 6 therein. *Id*. at 1:43-48. Because each of the pins 3 has two leg portions 5 (*see id*. at 1:44-46) extending side-by-side (*see id*. FIGS. 2-3), a slot is formed in each of the pins between the two leg portions (*see* annotated FIG.3 herein). The pins 3 in each row are staggered (i.e., offset) relative to the pins 3 in the other row (see annotated FIG. 1 below). The board 1 is also provided with a needle (i.e., a hook). *See id*. at 1:57-58.





1. Claims 1-3, 6, 7 and 9-11 Are Anticipated by La Croix

As demonstrated below, La Croix discloses all of the elements of Claims 1-3, 6, 7 and 9-11, which are hence unpatentable under AIA §102(a).

Claims 1 and 6. A device (C. 1) or kit (C. 6) for creating an item consisting of a series of links, the device comprising:	As discussed in Section VIII.A above, the preamble does not constitute a claim limitation. In any event, La Croix discloses a knitting board which creates a knitted article which inherently consists of a series of links. *See* Ex. 1013 at ¶121.
a base; and (C. 6 recites "a base" at the end of the claim).	La Croix discloses a knitting board 1 (i.e., a base). *See* Ex. 1015 at 1:35-36 and FIGS. 1-2.
a plurality of pins supported on the base (C. 1), a plurality of pins supported relative to each other (C. 6)	The La Croix knitting board 1 has a plurality of cotter pins 3 which are received in recesses 4 formed directly in the board 1 and hence are supported on (in contact with) the board 1. *See id.* at 1:41-44 & FIG. 1 & 2. When the pins 3 are mounted in the recesses 4, they are supported relative to each other.
wherein each of the plurality of pins includes a top portion for holding a link in a desired orientation and	Each pin 3 in La Croix has a round portion (the round head 7), which holds a link in a desired orientation (*see id*. at 1:46 & FIG. 2 showing a yarn 9 below the round head 7).
an opening on at least one side of each of the plurality of pins,	Each of the pins 3 in La Croix includes an eyelet 6 formed in the round head 7 on at least one side of each of the pins 3. *Id.* at 1:46 & FIG. 3. Also, because each pin 3 includes a pair of leg portions 5 that are positioned side-by-side, a space (i.e., a slot or groove) is formed between the leg portions 5 on at least one side of each of the pins. *See* annotated FIG. 3 in the preceding page.
wherein the plurality of pins comprises rows of offset pins spaced apart and extending upward from the base (C. 6 states "a base").	Referring to annotated FIG. 1 on the preceding page, the pins 3 in La Croix are formed in two rows staggered (i.e., offset) laterally, thereby satisfying Offset Constr. 1 of "offset pins". Moreover, pins 3 in each row are also staggered (i.e., offset) relative to pins in the other row longitudinally, thereby satisfying Offset Constr. 2 of "offset pins". Pins 3 are spaced apart and extend upward from the board 1. *See* FIGS. 1 and 2.
Claims 2 and 9. The device as recited in	Because each pin 3 includes a pair of

claim 1 (C. 1) or the kit as recited in claim 6 (C. 9), wherein the opening comprises a slot extending from the top portion toward the base. ***Claim 10.*** The kit as recited in claim 6, wherein the opening comprises an access groove disposed along at least one side of each of the plurality of pins.	leg portions 5 that are positioned side-by-side, a space (i.e., a slot or groove) is formed between the leg portions 5. The space extends from the round head 7 towards the board 1. *See* annotated FIG. 3 on page 75 above. This space is accessible by a hook (*see* Ex. 1013 at ¶121).
Claims 3 and 11. The device as recited in claim 1 (C. 1) or the kit as recited in claim 6 (C. 11), wherein the top portion comprises a flared portion for holding a link in place on at least one of the plurality of pins.	The round head 7 of each pin 3 in La Croix has an outwardly expanding shape and therefore has a flared portion. The round head 7 of each pin 3 holds a link in place on its corresponding pin 3. *See* annotated FIG. 3 above on page 75 above.
Claim 7. The kit as recited in claim 6, including a hook tool for manipulating a link held in a desired orientation on at least one of the plurality of pins.	A needle 7 is provided in La Croix for removing a yarn placed on the pins 3 so as to produce a piece of knitted fabric (*see id*. at 1:57-61).

2. <u>Claims 4 and 12 Are Obvious Over La Croix In view of Hobson</u>

Claims 4 and 12 depend from Claims 1 and 6, respectively, and further require that each of the plurality of pins includes a bottom flared portion spaced apart from the top portion and a mid portion for holding a link. While La Croix discloses a mid portion for holding a link (*see* FIG. 3), it does not teach a bottom flared portion. However, Hobson (Ex. 1020) discloses a cotter pin 15 having a bottom portion which is provided with locking fingers 23 projecting radially outwardly from each leg 19, thereby forming a bottom flared portion spaced apart from a top portion. *See* Ex. 1020 at FIG. 2. La Croix states that its knitting board uses "cotter pins 3 that are of ***standard construction***". Ex. 1015 at 1:41-43. Since

the cotter pin 15 disclosed in Hobson is of standard construction, it would have been obvious to a skilled person to use the Hobson cotter pins in the La Croix knitting board (Ex. 1013 at ¶118-119). Since the locking fingers 23 provide a locking function, it would also have been desirable to use the Hobson cotter pins 15 to secure them to the La Croix knitting board. Accordingly, Claims 4 & 12 are obvious over La Croix in view of Hobson. Ex. 1013 at ¶¶118-120.

3. Claims 14 and 15 Are Obvious Over La Croix In view of Ng

The following chart compares La Croix to Claim 14.

Claim 14. A method of assembling a kit for creating a linked item comprising the steps of:	La Croix discloses a method for assembling a knitting board for use in creating a knitted article which inherently consists of a series of links. *Id.* at 121; Ex. 1015 at 1:1-4.
supporting a plurality of pins to define a desired spatial relationship between pins;	Cotter pins 3 are provided for mounting onto a knitting board 1 in La Croix. Ex. 1015 at 1:42-45. When the pins 3 are mounted to the board 1, they define a desired spatial relationship. *Id.* at FIG. 1.
providing an access opening on each of the plurality of pins to provide access for a hook tool to grasp a link supported on one of the plurality of pins;	Each of the pins 3 in La Croix includes an eyelet 6 formed in the round head 7 on at least one side of each of the pins 3. *Id.* at 1:46 & FIG. 3. Also, because each pin 3 includes a pair of leg portions 5 that are positioned side-by-side, a space (i.e., a slot or groove) is formed between the leg portions 5 on at least one side of each of the pins. *See* annotated FIG. 3 on page 75 above.
providing a plurality of links for assembly to the plurality of pins according to a desired pattern; and	*See* below discussion.
providing a plurality of connectors for holding links together once a desired pattern is completed.	*See* below discussion.

As seen above, La Croix discloses all of the steps of Claim 14, except the last two steps. However, Ng discloses a method of forming Brunnian links by

assembling a plurality of links onto a loom according to a desired pattern (*see* Ex.1016 at ¶0042) and then holding the links together with one or more connectors once a desired pattern is completed (*see id.* at ¶0045 and FIGS. 15-16). Because La Croix and Ng are both used in manually making linked structures from fibers, they belong to the same technical field. Ex. 1013 at ¶¶101-106. The inventor in Ng also recognized that the Ng device belongs to the same field. *See* Ex. 1016 at ¶¶0002-0003. In such circumstances, a skilled person would have been motivated to look for looms that are simpler in design, and/or cost less to manufacture, than Ng. Ex. 1013 at ¶124. La Croix certainly has a construction that is simpler than the Ng device, and would therefore cost less to manufacture. *Id.* at ¶¶122-124. Moreover, because La Croix has pins arranged in the basic same manner as in Ng, its loom is interchangeable with the loom in Ng and is readily adaptable for use in conjunction with the bands disclosed in Ng. *Id.* at ¶102, 106. Accordingly, it would have been obvious to a skilled person to provide La Croix with the links and connectors disclosed in Ng so that La Croix can be used to form Brunnian links as taught by Ng. Thus, Claim 14 is obvious over La Croix in view of Ng. *Id.* at ¶¶121-124.

Claim 15 recites "the step of providing a hook tool for insertion into the access opening for manipulating a link supported on one of the plurality of pins". A needle 7 is provided in La Croix for removing a yarn placed on the pins 3 so as to produce a piece of knitted fabric (*see* Ex. 1015 at 1:57-61). In such

circumstances, Claim 15 is obvious over La Croix in view of Ng. Ex. 1013 at ¶125.

4. Claims 5, 13 and 16 Are Obvious Over La Croix In View of Ng

While the feature recited in these claims is not disclosed in La Croix, Ng discloses a Brunnian-link making device 10 having male and female joints 80, 82 for combining additional templates 66 and pluralities of pins thereto. *See* Ex. 1016 at ¶0047 and FIGS. 19-20. For the reasons discussed in the preceding section, it would be obvious to provide La Croix with the bands and clips disclosed in Ng to form Brunnian links with same. It follows then that it would be obvious to a skilled person to provide La Croix with Ng's male/female joints such that additional pin arrangements can be achieved (e.g., to make the La Croix board longer, to provide additional rows of pins, etc.) to make additional link deigns as taught by Ng. Thus, Claims 5 and 13 are obvious over La Croix in view of Ng. Ex. 1013 at ¶126.

With respect to Claim 16, all of the elements recited therein are recited in Claim 5. Accordingly, for the reasons discussed above for Claim 5, Claim 16 is also rendered obvious over La Croix in view of Ng. *Id.* at ¶127.

For the foregoing reasons, the post-grant review is respectfully requested.

Respectfully submitted,

Date: August 5, 2014 /Ralph W. Selitto, Jr./

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CERTIFICATE OF SERVICE

The undersigned certifies service pursuant to 37 CFR §§ 42.6(e) and 42.105(b) on the Patent Owner by UPS overnight delivery of a copy of this Petition for Post Grant Review, including its accompanying exhibits, at the correspondence address of record for U.S. Patent No. 8,684,420, namely, Carlson, Gaskey & Olds, P.C., 400 West Maple Road, Suite 350, Birmingham, MI 48009, on August 5, 2014.

Respectfully submitted,

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