

**UNITED STATES PATENT AND TRADEMARK OFFICE**

---

**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

---

**MUNCHKIN, INC.**

**Petitioner**

**v.**

**SKIP HOP, INC.**

**Patent Owner**

---

**Case IPR 2015-00\_\_\_\_\_**  
**Patent 9,060,653**

---

---

**DECLARATION OF  
MICHAEL C. THUMA**

**January 29, 2016**

---

## **I. INTRODUCTION**

I, Michael C. Thuma, am a United States citizen residing in La Grange, Illinois.

I have been retained by the attorneys of Lathrop & Gage, LLP on behalf of Munchkin, Inc. in this case as an expert, and will provide consultation, opinions, conclusions, evidence and testimony pertaining to issues related to the matter. It is my understanding that I will have the opportunity to supplement my report to address any subsequent expert reports or opinions offered on behalf of the patent owner in this case and I reserve the right to supplement my opinions based on future court rulings, agreements between the parties or any further information I learn of or evidence submitted by either party.

## **II. TERMS OF ENGAGEMENT**

According to the terms of engagement by the petitioners, I am being paid \$250 per hour, plus expenses. My compensation is unrelated to the outcome of this matter.

## **III. EDUCATION AND TECHNICAL/PROFESSIONAL EXPERIENCE**

I have been involved in Product Development and new product innovation for over 24 years, serving in various positions in both corporate and consulting settings. I have been involved with both large and small consulting firms and have worked with a wide range of clients in areas ranging from house wares, kitchen appliances, toys, child safety products, electronics, automotive, medical and

industrial equipment. In addition to my experience in Product Development, I was previously a Partner at a small Architectural Design and Build firm where my responsibilities included designing and specifying products for commercial and residential kitchens and bathrooms.

My experience includes working as an expert in connection with litigation matters and I have been part of numerous cases involving utility and design patent infringement as well as trade dress. A listing of the matters where I have provided testimony during the past four years is attached hereto as part of my *curriculum vitae* (“CV”). I am also familiar with the U.S. Patent system and am named as inventor on 149 design and utility patents. My formal education includes a Bachelor of Fine Arts degree in Industrial Design from The University of Illinois at Chicago, and a Master of Science degree in Product Development from Northwestern University. I have also supplemented my education during the course of years of work experience and through attending industry related seminars and management training. A copy of my CV is appended hereto as Exhibit 1.

#### **IV. BASIS FOR AND SUMMARY OF OPINIONS**

The bases for my opinions are a result of my academic and professional experience as a Product Developer and Architectural Designer. My expertise in product development and industrial design includes techniques used in the design and manufacture of various types of products including plumbing fixtures and child safety products. My experience as an Architectural Designer includes

techniques used in designing commercial and residential structures that include bathrooms that require familiarity with the design and installation of plumbing fixtures. During my career, I have developed and presented hundreds of designs for manufacture and assembly, and designed and managed the construction of numerous commercial and residential buildings.

## **V. EXPERIENCE AS AN EXPERT**

In the past several years, I have given evidence through expert statements, reports and depositions in 21 cases as shown in the list accompanying my CV.

## **VI. UNDERSTANDING OF APPLICABLE PATENT LAWS**

I have acquired some exposure to and working knowledge of United States patent laws through my Product Development experience and as a result of my prior consulting work. I do not consider myself an expert in patent law. In rendering the opinions expressed in this report I have relied on my understanding of legal concepts as summarized below.

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

I understand that claims are interpreted from the perspective of one of ordinary skill in the art at the time of the invention and not from the perspective of judges, lay persons, those skilled in remote arts, or geniuses in the art at hand.

I further understand that the characteristics of one having ordinary skill in the art should be defined before engaging in any infringement or invalidity analysis. Factors that can be considered in determining the level of ordinary skill

in the art include: (1) the educational level of the inventor; (2) the type of problems encountered in the art; (3) the prior art solutions to those problems; (4) the rapidity with which innovations are made; (5) the sophistication of the technology; and (6) the educational level of active workers in the field.

For purposes of this analysis, I have considered the characteristics of a person having ordinary skill in the art with respect to the inventions claimed in the '653 Patent, and have concluded that, based on the simplicity of the product and the experience level required to use the product, one of ordinary skill in the art has at least the equivalent of: (a) 3 years of experience regarding the design and manufacture of plastic molded products and plumbing fixtures, including experience regarding the design and manufacture of child safety devices; or (b) a bachelor's degree in mechanical engineering, industrial design, or a related field and two years of experience regarding the design and manufacture of child safety devices. I believe that I have at least ordinary skill in the art of child safety devices and all of my analysis set forth in this Declaration is provided from the viewpoint of one of ordinary skill in the art as of July 2009.

#### **B. Patent Validity – Anticipation**

A patent claim is invalid as anticipated (i.e., the claimed invention is not new or novel) under 35 U.S.C. § 102 when a single prior art reference (e.g., a patent or publication) discloses within the four corners of the document every limitation recited in the claim, arranged or combined in the same way as recited in

the claim. This analysis is very similar to an infringement analysis. In an infringement analysis, the claims are first construed, and then the properly construed claims are compared to the product that is being accused of infringement. If the accused product includes all limitations of the claim combined or arranged as recited in the claim, it infringes that claim. Anticipation analysis is much the same, except that the properly construed claims are compared to a prior art reference, not to the accused product. If that prior art reference teaches all the limitations combined or arranged as recited in the claim in a manner that would enable one skilled in the art to practice the claimed invention, that claim is not new, but is “anticipated” by the prior art reference.

For example, if a claim specifies the limitations of A, B, and C, and the accused product contains those three elements arranged as required by the claim, then the accused product infringes. Likewise, if a prior art reference teaches elements A, B, and C arranged as required by the claim, the claim is anticipated by the prior art reference.

For a prior art reference to “teach” the limitations of a claim, a person of ordinary skill in the art must recognize the limitations as disclosed, expressly or inherently, in that single reference and, to the extent the claim specifies a relationship between the limitations, the disclosed limitations must be in the same relationship as recited in the claim. Additionally a disclosure can “teach” a limitation only if the disclosure of the reference is enabling. This means that a

person of ordinary skill in the art, having become familiar with the prior art, must be enabled thereby to practice the invention without undue experimentation.

A prior art reference may anticipate a claimed invention when the claim limitations not expressly found in that reference are nonetheless “inherent” in it. However, a single prior art reference may only anticipate a claimed invention by inherent disclosure when the prior art reference must necessarily include the accused limitation. To establish inherency, the extrinsic evidence (evidence outside the document) must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill in the art.

### **C. Patent Validity – Obviousness**

Where a single prior art reference does not disclose all limitations of a claim, that claim may nonetheless be proven invalid as obvious under 35 U.S.C. § 103. For a claim to be obvious, all limitations of the claimed invention must be present in two or more prior art references, or in prior art references combined with the knowledge generally possessed by one of ordinary skill in the art. Thus, if a claim specifies the limitations A, B and C, and one reference shows only A and B, then the claim may be invalid as obvious if C is disclosed in a separate reference or, alternatively, is part of the knowledge of one of ordinary skill in the art.

An obviousness finding cannot be made solely on the basis that all of the claim limitations are found in the prior art; most inventions are new combinations

of known components. Instead, there must be some reason to combine the limitations in the manner claimed by the invention at issue.

A patent claim is invalid as obvious if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole at the time of the invention would have been obvious to a person having ordinary skill in the art of the subject matter to which the patent claim pertains. It is improper, however, to use hindsight in assessing obviousness.

## **VII. BACKGROUND**

The '653 Patent claims priority to U.S. Application No. 12/511,652 which was filed on July 29, 2009. The '653 Patent generally relates to a bath spout cover that provides a decorative appearance and also protects individuals from the spout underneath. I understand the stated objects of the '653 Patent to include providing a bath spout cover that is (a) easy to install and secure to the bath spout for providing protection and (b) easy to remove and store for drying. The body structure of the cover is made up of a front, top and two side portions that define a receiving area for the bath spout. The cover is held onto the bath spout with an adjustable strap that extends through apertures in the side portions.

### **A. Prior Art Reviewed**

Protective and decorative covers for bath spouts were well known in the prior art at the time of the invention claimed in the '653 Patent. Prior art bath spout covers that I reviewed are as follows: U.S. Patent Application Number



2007/0130688 to Thorne (“Thorne”) (a copy is attached hereto labeled Ex. 1005); and U.S. Patent Number 4,709,429 to Lerner (“Lerner”) (a copy is attached hereto labeled Ex. 1006). Non-bath spout cover prior art references that I reviewed are as follows: U.S. Patent Number 5,599,063 to Lister (“Lister”) (a copy is attached hereto labeled Ex. 1007); U.S. Patent Number 3,910,634 to Morris (“Morris”) (a copy is attached hereto labeled Ex. 1008); and U.S. Patent Application 2007/0175531 to Daniels (“Daniels”) (a copy is attached hereto labeled Ex. 1009).

## **B. Claim Construction**

Petitioner’s counsel informed me that construing claims is a matter of law, and has informed me that in this proceeding, the “end of the strap” as set forth in the claims of the ‘653 Patent does not require enlargement or angular offset relative to the rest of the strap. I have accordingly viewed the claims in this way.

Further, Petitioner’s counsel informed me that an “opening adapted to fit over a bath spout shower diverter” set forth in the claims of the ‘653 Patent (and specifically in claim 14) does not have to be separate from an elongated void. I have accordingly viewed the claims in this way.

Lastly, Petitioner’s counsel asked me to construe “elastomeric material” in claims 18 and 19 to mean “deformable material” such as deformable rubbers and plastics. This is the definition that I have used.

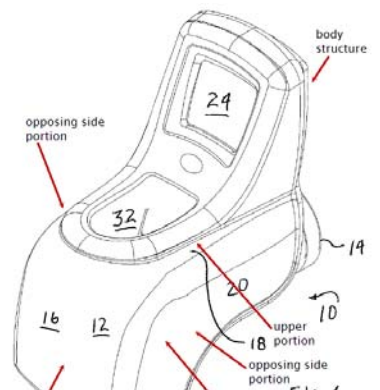
### VIII. CLAIMS 12–14 OF THE ‘653 PATENT ARE INVALID AS OBVIOUS.

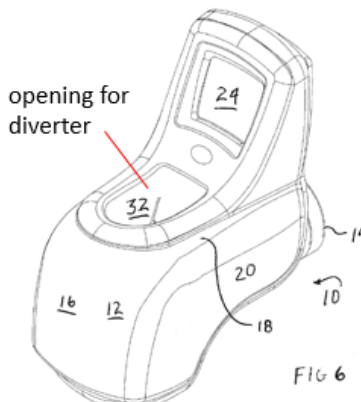
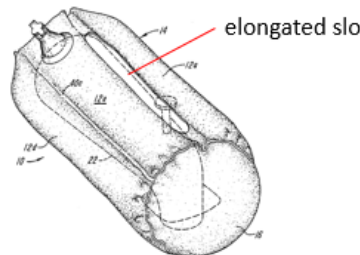
As explained in detail below, it is my opinion that claims 12–14 of the ‘653 Patent are invalid as being obvious to one of ordinary skill in the art at the time of the invention disclosed in the ‘653 Patent based on combinations of: (a) Thorne in view of Lerner and Lister, and (b) Thorne in view of Lerner and Daniels.

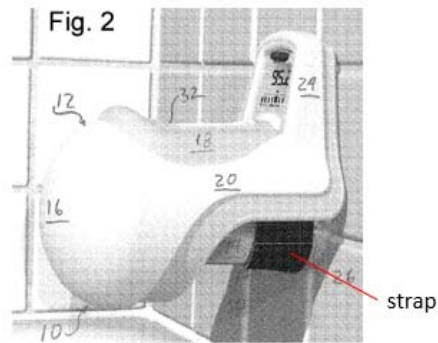
**A. Claims 12–14 are invalid based on the combination of Thorne in view of Lerner and Lister.**

## 1. Claim 12

It is my opinion that claim 12 is invalid under 35 U.S.C. § 103. The following claim chart shows the application of Thorne, Lerner, and Lister to claim 12.

Claim 12 of the '653 Patent	Reference
<p>A bath spout cover, comprising:</p> <p>a body structure having an upper portion, two opposing side portions, and a front portion;</p>	<p>Thorne discloses a bath spout cover in the Abstract and in paragraphs [0003] and [0032].</p> <p>The bath spout cover in Thorne has a body structure 12 that has an upper portion 18, two opposing side portions 20 and 22, and a front portion 16. <i>See</i> Thorne at FIG. 6 and paragraphs [0032], [0034]. FIG. 6 is reproduced with annotations below:</p> 

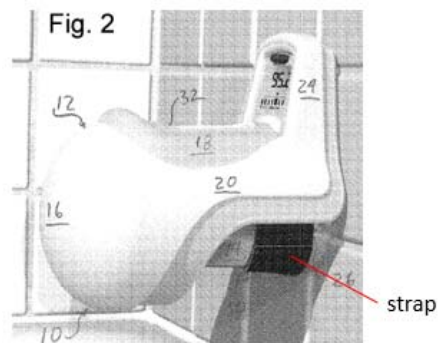
<p>a receiving area defined between the upper portion, the two opposing side portions, and the front portion,</p>	<p>The bath spout cover in Thorne further includes a receiving area that is defined between the upper portion 18, the two opposing side portions 20 and 22, and the front portion 16. <i>See</i> Thorne at FIGs. 2 and 11, and paragraph [0035].</p>
<p>the upper portion defines an elongated void extending along substantially an entire length of the upper portion;</p>	<p>The upper portion 18 in Thorne defines an elongated void 32 that extends along a length of the upper portion. <i>See</i> Thorne at FIGs. 1 and 6. FIG 6 is reproduced with annotations below:</p>  <p>Lerner also discloses a bath spout cover. <i>See</i> Lerner at 1:5–20, 1:44–47, and 4:7–17. The Lerner bath spout cover also has a void 34 which extends along substantially an entire length of the upper portion. <i>See</i> Lerner at FIGs. 1 and 3, and 2:60–62. FIG. 1 is reproduced with annotations below:</p> 
<p>a strap operably connected to the two opposing side portions, said strap for securing the bath spout cover to a bath spout; and</p>	<p>Thorne discloses a strap 26 that is operably connected to the two opposing side portions 20 and 22. <i>See</i> Thorne at FIGs. 2 and 4, and paragraph [0037]. FIG. 2 is reproduced with annotations below:</p>



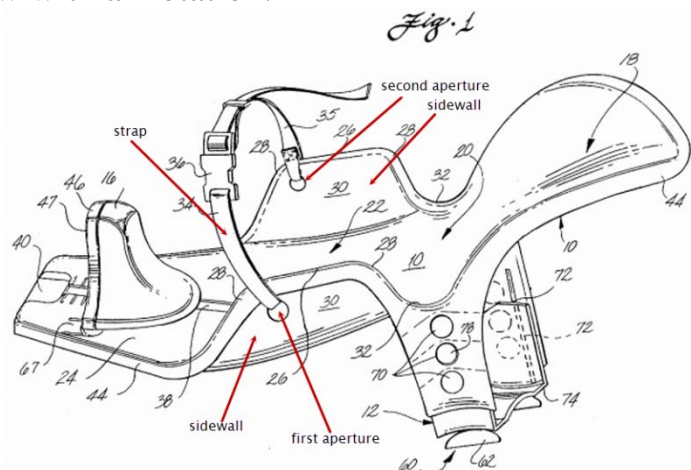
The strap in Thorne is used to secure the bath spout cover to a bath spout. *See Thorne at FIGs. 2 and 4, and paragraphs [0037] and [0040].*

at least one aperture defined by one of the side portions of the body structure, said aperture for receiving an end of the strap.

The strap in Thorne extends from the side portions of the body structure. *See Thorne at FIGs. 2 and 4. FIG. 2 is reproduced below with annotation:*



Lister discloses a baby bathing chair. *See Lister at FIG. 1, and 1:10–17. The baby bathing chair in Lister has straps, the ends of which pass apertures in the side portions. FIG. 1 of Lister is reproduced below with annotation:*



It is my opinion that Thorne in combination with Lerner meets the limitation “the upper portion defines an elongated void extending along substantially an entire length of the upper portion” as shown in FIG. 1 of Lerner, where the diverter valve access opening is an “elongated void extending along substantially an entire length of the upper portion.” It is also my opinion that one of ordinary skill in the art would understand to combine Thorne with Lerner to meet the described limitation above. Lerner discloses a bath spout cover that has a void (34) that allows access to the spout’s shower control knob when the spout cover covers the spout.<sup>1</sup> Combining Thorne and Lerner would yield a predictable result because Lerner describes that the void should be elongated such that it extends substantially along an entire length of the upper portion so that the spout cover can be used with bath spouts that have shower control knobs in different positions. *See* Lerner at FIGs. 1 and 3, and 2:60–62.

One of ordinary skill in the art would recognize the benefit provided by Lerner—the ability to use the spout cover with bath spouts that have shower control knobs in different positions—and would modify the Thorne body accordingly in order for Thorne to recognize this same benefit. Even Thorne notes that it is beneficial to have a spout cover that can be used with different configurations of bath spouts. *See, e.g.*, Thorne at paragraph [0035]. Modifying

---

<sup>1</sup> One of ordinary skill in the art would understand that a diverter valve is identical to a shower control knob.

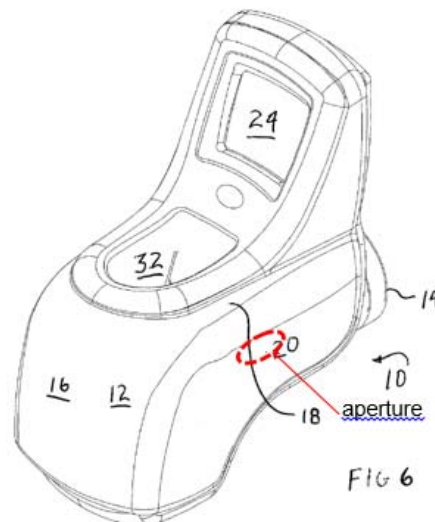
Thorne as described by Lerner would produce an entirely predictable result, because it would merely broaden the applicability of the Thorne spout cover to additional configurations of bath spouts.

It is also my opinion that one of ordinary skill in the art, to see how straps may be attached to the Thorne spout cover, would look to other devices with straps—and particularly to other child safety, bathtub, and water spout devices with straps—and would incorporate those teachings into Thorne. As discussed in the chart above, Thorne discloses a strap that extends from side portions of its body, but does not disclose how the strap attaches to the body. Additionally, Thorne does not disclose an aperture defined by side portions of the body structure, the aperture being for receiving an end of the strap. However, as annotated FIG. 1 of Lister shows, Lister describes a strap that passes through an aperture in a sidewall.

One of ordinary skill in the art (i.e., child safety and bathtub devices for infants and small children, and devices that attach to water spouts) would be aware of baby bathing chairs such as those set forth in Lister. And they would recognize that using a strap that passes through an aperture in a sidewall as described by Lister would be a suitable and cost effective method of attaching a strap, and would be appropriate with the bath spout cover of Thorne. One of ordinary skill in the art would combine Thorne with Lister to meet the limitation “at least one aperture defined by one of the side portions of the body structure, said aperture for

receiving an end of the strap,” because doing so would merely involve using a known method of attaching straps (as described in Lister) on the Thorne spout cover, which would yield a predictable result.

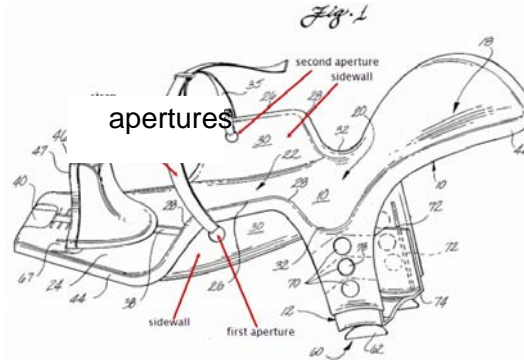
Combining Thorne and Lister in this manner would result in a bath spout cover as disclosed in Thorne that includes an aperture defined by one of the side portions of the body structure, the aperture being configured to receive an end of the strap. FIG. 6 of Thorne is provided below illustrating where the aperture would be located, and consequently where an end of the strap would be passed through:



Thorne annotated FIG. 6.

## 2. Claim 13

It is my opinion that claim 13 is invalid under 35 U.S.C. § 103. The combination of Thorne, Lerner, and Lister meets the limitations of claim 12 as set forth above. The following claim chart shows the application of Thorne, Lerner and Lister to claim 13:

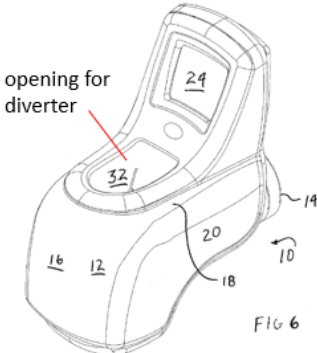
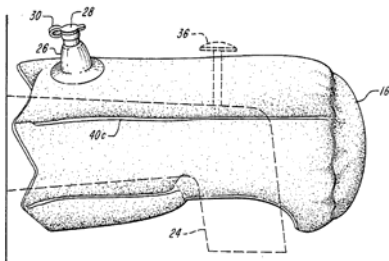
Claim 13 of the '653 Patent	Reference
<p>The bath spout cover of claim 12, further comprising a second aperture defined by the other side portion of the body structure, said second aperture for receiving the other end of the strap.</p>	<p>Lister discloses a baby bathing chair. <i>See</i> Lister at 1:10–17. The baby bathing chair in Lister has straps, the ends of which pass through respective apertures, with one aperture on each side portion of the bathing chair. FIG. 1 of Lister is reproduced below with annotation:</p> 

Annotated FIG. 1 of Lister, provided above, shows that both ends of the strap pass through respective apertures in the side portions. Considering Thorne in view of Lister, it would have been obvious to one of ordinary skill in the art to attach both ends of the Thorne strap to apertures provided in each side portion of the bath spout cover. Attaching the strap in this manner is a suitable and cost effective method of attaching a strap, and would be appropriate with the bath spout cover of Thorne. Moreover, providing multiple apertures for receiving the ends of a strap as taught by Lister would merely involve using a known technique to improve the Thorne device. This simple substitution would be well within the ordinary skill in the art and would be entirely predictable.

### 3. Claim 14



It is my opinion that claim 14 is invalid under 35 U.S.C. § 103. Claim 13 is met as set forth above. The following claim chart shows the application of Thorne and Lerner to claim 14:

Claim 14 of the '653 Patent	Reference
<p>The bath spout cover of claim 13, wherein the upper portion further defines an opening adapted to fit over a bath spout diverter.</p>	<p>Thorne discloses a bath spout cover that defines an elongated void 32. <i>See</i> Thorne at FIGs 1 and 6. FIG 6 is reproduced with annotations below:</p>  <p>Lerner discloses a bath spout cover that defines an elongated void 34 that extends substantially along the entire length of the upper portion. <i>See</i> Lerner at FIGs. 1 and 3, and 2:60–62. And FIG. 5 makes it clear that the void 34 is over the diverter 36. FIG 5 is reproduced below:</p>  <p style="text-align: center;"><b>FIG. 5</b></p>

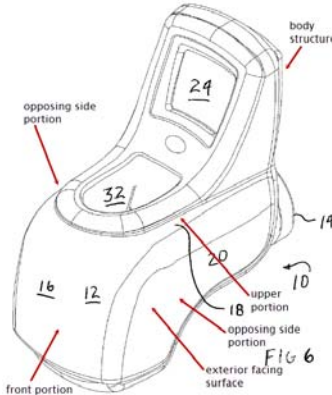
The combination of Thorne with Lerner, as shown in the chart above, results in an opening that is “adapted to allow access to and operation of diverter valve 34

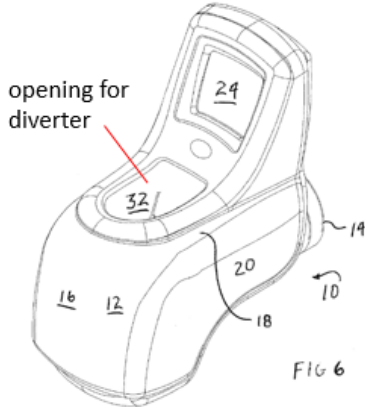
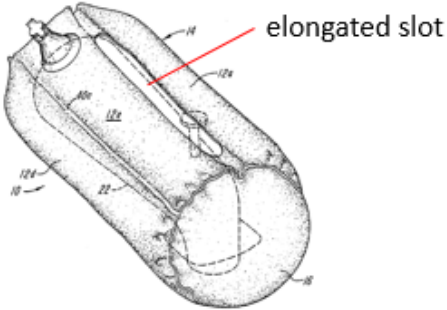
of the spout 14 when the spout cover 10 is installed.” *See* Thorne at paragraph [0039]. And, the figures make it abundantly clear that the opening 32 is over the diverter, as shown in FIG. 5 in the chart above. Thus, it is clear to me that this claim language is met.

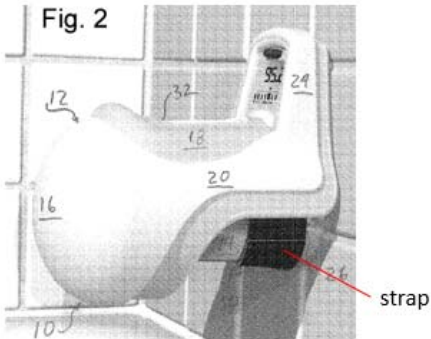
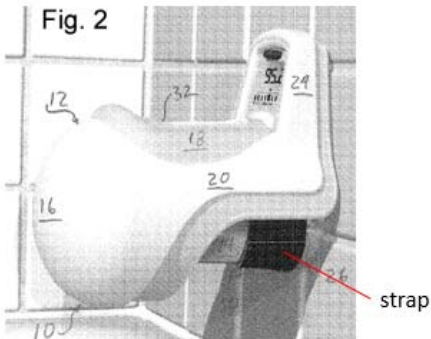
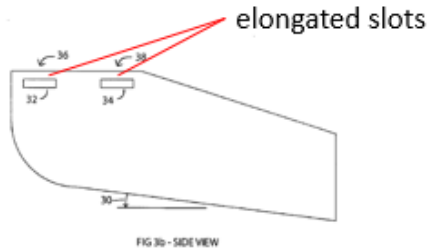
**B. Claims 12–14 are invalid based on the combination of Thorne in view of Lerner and Daniels.**

**1. Claim 12**

It is my opinion that claim 12 is invalid under 35 U.S.C. § 103. The following claim chart shows the application of Thorne, Lerner and Daniels to claim 12:

<b>Claim 12 of the ‘653 Patent</b>	<b>Reference</b>
A bath spout cover, comprising:	Thorne discloses a bath spout cover in the Abstract and in paragraphs [0003] and [0032].
a body structure having an upper portion, two opposing side portions, and a front portion;	<p>The bath spout cover in Thorne has a body structure 12 that has an upper portion 18, two opposing side portions 20 and 22, and a front portion 16. <i>See</i> Thorne at FIG. 6, and paragraphs [0032] and [0034]. FIG. 6 is reproduced with annotations below:</p> 
a receiving area defined between the upper portion,	The bath spout cover in Thorne further includes a receiving area that is defined between the upper

<p>the two opposing side portions, and the front portion,</p>	<p>portion 18, the two opposing side portions 20 and 22, and the front portion 16. <i>See</i> Thorne at FIGs. 2 and 11, and paragraph [0035].</p>
<p>the upper portion defines an elongated void extending along substantially an entire length of the upper portion;</p>	<p>The upper portion 18 in Thorne defines an elongated void 32 that extends along a length of the upper portion. <i>See</i> Thorne at FIGs. 1 and 6. FIG. 6 is reproduced with annotations below:</p>  <p>FIG. 6</p> <p>Lerner also discloses a bathtub spout cover. <i>See</i> Lerner at 1:5–20, 1:44–47, and 4:7–17. The Lerner bathtub spout cover also has a void 34 which extends along substantially an entire length of the upper portion. <i>See</i> Lerner at FIGs. 1 and 3, and 2:60–62. FIG. 1 is reproduced with annotations below:</p> 
<p>a strap operably connected to the two opposing side portions, said strap for securing the bath spout cover to a bath spout; and</p>	<p>Thorne discloses a strap 26 that is operably connected to the two opposing side portions 20 and 22. <i>See</i> Thorne at FIGs. 2 and 4, and paragraph [0037]. FIG. 2 is reproduced with annotations below:</p>

	 <p>The strap in Thorne is used to secure the bath spout cover to a bath spout. <i>See</i> Thorne at FIGs. 2 and 4, and paragraphs [0037] and [0040].</p>
<p>at least one aperture defined by one of the side portions of the body structure, said aperture for receiving an end of the strap.</p>	<p>The strap in Thorne extends from the side portions of the body structure. <i>See</i> Thorne at FIGs. 2 and 4. FIG. 2 is reproduced with annotations below:</p>  <p>Daniels discloses a water spout extender for a sink. The water spout extender in Daniels has straps, the ends of which pass through elongated slots in the side portions of the extender. <i>See</i> Daniels at FIGs. 1 and 3b, and paragraph [0034]. FIG. 3b is reproduced with annotations below:</p> 

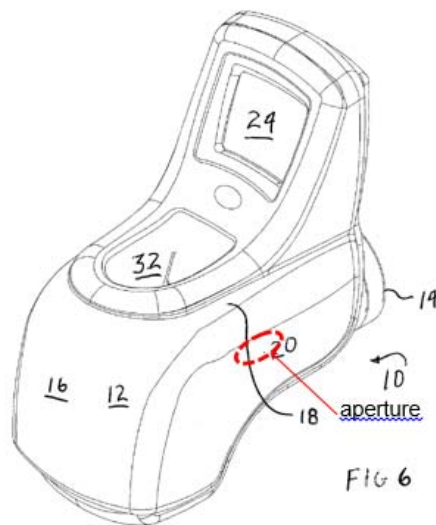
As described above, it is my opinion Thorne in combination with Lerner meets the limitation “the upper portion defines an elongated void extending along substantially an entire length of the upper portion” and it is also my opinion that one of ordinary skill in the art would understand to combine Thorne with Lerner to meet the described limitation above.

It is also my opinion that one of ordinary skill in the art, to see how straps may be attached to the Thorne spout cover, would look to other devices with straps—and particularly to other child safety, bathtub, and water spout devices with straps—and would incorporate those teachings into Thorne. As discussed in the chart above, Thorne discloses a strap that extends from side portions of its body, but does not disclose how the strap attaches to the body. Additionally, Thorne does not disclose an aperture defined by side portions of the body structure, the aperture being for receiving an end of the strap. However, as annotated FIG. 3b of Daniels shows, Daniels describes a strap that passes through an aperture in a sidewall.

One of ordinary skill in the art (i.e., child safety and bathtub devices for infants and small children, and devices that attach to water spouts) would be aware of water spout extenders for sinks such as those set forth in Daniels. And they would recognize that using a strap that passes through an aperture in a sidewall as described by Daniels would be a suitable and cost effective method of attaching a strap, and would be appropriate with the bath spout cover of Thorne. One of

ordinary skill in the art would combine Thorne with Daniels to meet the limitation “at least one aperture defined by one of the side portions of the body structure, said aperture for receiving an end of the strap,” because doing so would merely involve using a known method of attaching straps (as described in Daniels) on the Thorne spout cover, which would yield a predictable result.

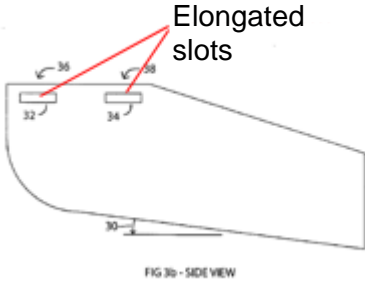
Combining Thorne and Daniels in this manner would result in a bathtub spout cover as disclosed in Thorne that includes an aperture defined by one of the side portions of the body structure, the aperture being configured to receive an end of the strap. FIG. 6 of Thorne is provided below illustrating where the aperture would be located, and consequently where an end of the strap would be passed through:



Thorne annotated FIG. 6.

## 2. Claim 13

It is my opinion that claim 13 is invalid under § 103. The combination of Thorne, Lerner, and Daniels meets the limitations of claim 12 as set forth above. The following claim chart shows the application of Thorne, Lerner and Daniels to claim 13:


Claim 13 of the '653 Patent	Reference
<p>The bath spout cover of claim 12, further comprising a second aperture defined by the other side portion of the body structure, said second aperture for receiving the other end of the strap.</p>	<p>Daniels discloses a water spout extender for a sink. The water spout extender in Daniels has straps, the ends of which pass through respective elongated slots, with slots on each side portion of the extender. <i>See</i> Daniels at FIGs. 1 and 3b, and paragraph [0034]. FIG. 3b is reproduced with annotations below:</p> 

Annotated FIG. 3b of Daniels, provided above, shows that both ends of the strap pass through respective elongated slots (i.e., apertures) in the side portions. Considering Thorne in view of Daniels, it would have been obvious to one of ordinary skill in the art to attach both ends of the Thorne strap to elongated slots, or apertures, provided in each side portion of the bath spout cover. Attaching the strap in this manner is a suitable and cost effective method of attaching a strap, and would be appropriate with the bath spout cover of Thorne. Moreover, providing

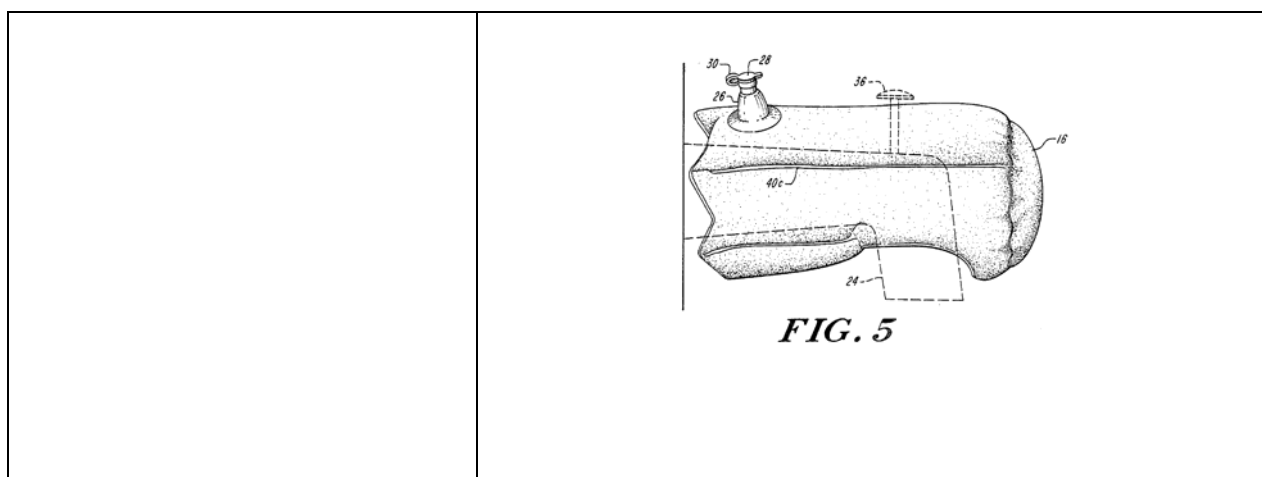
multiple apertures for receiving the ends of a strap as taught by Daniels would merely involve using a known technique to improve the Thorne device. This simple substitution would be well within the ordinary skill in the art and would be entirely predictable.

### 3. Claim 14

It is my opinion that claim 14 is invalid under 35 U.S.C. § 103. Claim 13 is met as set forth above. The following claim chart shows the application of Thorne and Lerner to claim 14:

Claim 14 of the '653 Patent	Reference
<p>The bath spout cover of claim 13, wherein the upper portion further defines an opening adapted to fit over a bath spout diverter.</p>	<p>Thorne discloses a bath spout cover that defines an elongated void 32. <i>See</i> Thorne at FIGs. 1 and 6. FIG. 6 is reproduced with annotations below:</p>  <p>Lerner discloses a bath spout cover that defines an elongated void 34 that extends substantially along the entire length of the upper portion. <i>See</i> Lerner at FIGs. 1 and 3, and 2:60–62. FIG. 5 is reproduced below:</p>





The combination of Thorne with Lerner, as shown in the chart above, results in an opening that is “adapted to allow access to and operation of diverter valve 34 of the spout 14 when the spout cover 10 is installed.” *See* Thorne at paragraph [0039]. And, the figures make it abundantly clear that the opening 32 is over the diverter, as shown in FIG. 5 in the chart above. Thus, it is clear to me that this claim language is met.

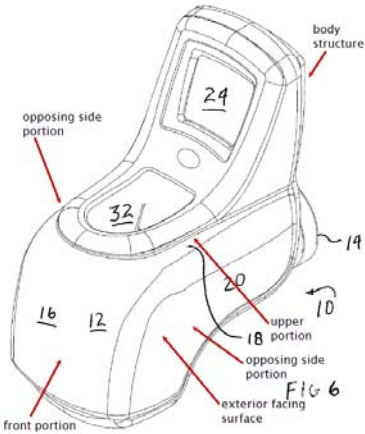
#### **IX. CLAIMS 15–21 OF THE ‘653 PATENT ARE INVALID AS OBVIOUS.**

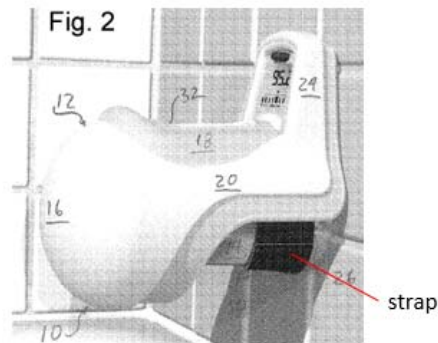
It is my opinion that claims 15–21 of the ‘653 Patent are invalid as being obvious to one of ordinary skill in the art at the time of the invention based on combinations of (a) Thorne in view of Lister and Morris or (b) Thorne in view of Daniels.

##### **A. Claims 15–21 are invalid as obvious based on the combination of Thorne in view of Lister and Morris.**

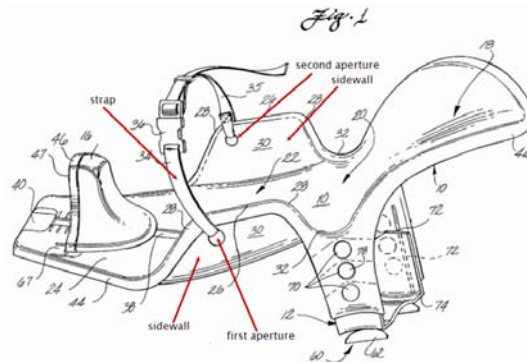
##### **1. Claim 15**

It is my opinion that claim 15 is invalid under 35 U.S.C. § 103. The following claim chart illustrates the application of Thorne, Lister, and Morris to claim 15:

Claim 15 of the '653 Patent	Reference
<p>A bath spout cover, comprising:</p> <p>a body structure with an exterior facing surface, the body structure having an upper portion, two opposing side portions, and a front portion;</p>	<p>Thorne discloses a bath spout cover at the Abstract and in paragraphs [0003] and [0032].</p> <p>The bath spout cover in Thorne has a body structure 10 that has an exterior facing surface, an upper portion 18, two opposing side portions 20 and 22, and a front portion 16. <i>See</i> Thorne at FIG. 6, and paragraphs [0032] and [0034]. FIG. 6 from Thorne is reproduced below with annotation:</p> 
<p>a receiving area defined between the upper portion, the two opposing side portions, and the front portion;</p>	<p>The bath spout cover in Thorne further includes a receiving area that is defined between the upper portion 18, the two opposing side portions 20 and 22, and the front portion 16. <i>See</i> Thorne at FIGs. 2 and 11, and paragraph [0035].</p>
<p>at least one aperture through one of the side portions, and a strap spanning the two opposing side portions and traversing the at least aperture</p>	<p>Thorne discloses a strap 26 that is connected to and spans the opposing side portions 20 and 22. <i>See</i> Thorne at FIGs. 2 and 4, and paragraph [0037]. FIG. 2 is reproduced with annotations below:</p>



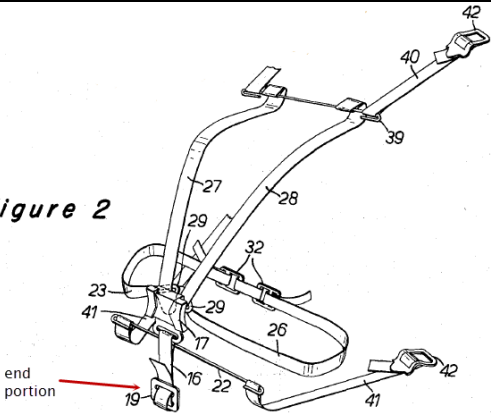
Lister discloses a baby bathing chair. Lister at 1:10–17. The baby bathing chair in Lister has straps, the ends of which pass through an aperture in a sidewall. FIG. 1 is reproduced with annotation below:



an end portion of the strap having a dimension larger than a dimension of the aperture, said end portion extending through said aperture and extending along the exterior facing surface of the body wherein part of the end portion abuts the exterior facing surface of the body structure, thereby holding the strap in place,

As noted above, both Thorne and Lister disclose a strap. *See* Thorne at FIGs. 2 and 4, and paragraph [0037]. *See* also Lister at FIG. 1, for example.

Morris discloses a child safety seat that has a strap with an end portion 19 “which is too large to be pulled through the slot.” Morris at 2:9–12; *see also id.* at FIG. 2. FIG. 2 is reproduced below with annotation:

	 <p><i>Figure 2</i></p>
<p>said strap for securing the bath spout cover to a bath spout.</p>	<p>Thorne states that the strap 26 is used to secure the bath spout cover 10 to a bath spout. <i>See</i> Thorne at FIGs. 2 and 4, and paragraphs [0037] and [0040].</p>

Thorne would be combined with Lister to meet the limitations of claim 15 for the same reasons I provided previously in Section VIII.A.1., regarding claim 12.

It is my opinion that one of ordinary skill in the art, to see how the strap in the Thorne/Lister combination may be attached to the spout cover and held in place, would look to other devices with straps—and particularly to other child safety, bathtub, and water spout devices with straps—and would incorporate those teachings into the Thorne/Lister combination. As noted in the chart above, both Thorne and Lister disclose the use of a strap, but neither of these have end portions. However, Morris discloses the use of an “end portion” which is “too large to be pulled through the slot.” Morris at 2:9–12; *see also id.* at FIG. 2.

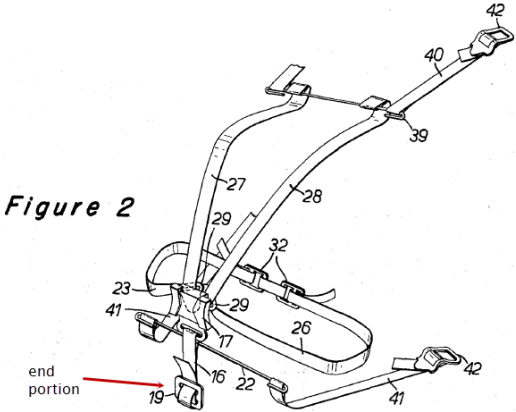
One of ordinary skill in the art (i.e., child safety and bathtub devices for infants and small children, and devices that attach to water spouts) would be aware

of child safety seats such as those set forth in Morris. And they would recognize that using the Morris end portion which is “too large to be pulled through the slot” would be a suitable and cost effective method of attaching a strap, and would be appropriate with the Thorne/Lister combination. One of ordinary skill in the art would combine Thorne with Morris to meet the limitation “an end portion of the strap having a dimension larger than a dimension of the aperture, said end portion extending through said aperture and extending along the exterior facing surface of the body wherein part of the end portion abuts the exterior facing surface of the body structure, thereby holding the strap in place,” because doing so would merely involve using a known element (the end portion in Morris) according to known methods, the result of which would be entirely predictable.

Incorporating the end portion of Morris into the straps of the Thorne/Lister in this manner would result in the enlarged end portion extending through the aperture of Thorne (as taught by Lister) and along the exterior facing surface of the body, with the end portion abutting the exterior facing surface of the body in order to hold the strap in place.

## **2. Claim 16**

It is my opinion that claim 16 is invalid under 35 U.S.C. § 103. Claim 16 is dependent upon claim 15 and the limitations of claim 15 are met as previously shown. The following claim chart shows the application of Thorne, Lister and Morris to claim 16:

Claim 16 of the '653 Patent	Reference
<p>The bath spout cover of claim 15, wherein the end portion abutting the exterior surface prevents the strap from sliding back through the at least one aperture.</p>	<p>As noted above regarding claim 15, both Thorne and Lister disclose a strap. <i>See</i> Thorne at FIGS. 2 and 4, and paragraph [0037]. <i>See</i> also Lister at FIG. 1, for example.</p> <p>And Morris discloses a child safety seat that has a strap with an end portion 19 “which is too large to be pulled through the slot.” Morris at 2:9–12; <i>see also id.</i> at FIG. 2. FIG. 2 is reproduced below with annotation:</p> 

Thorne would be combined with Morris to meet the limitation of claim 16 for the same reasons set forth directly above regarding claim 15. And using the end portion 19 as disclosed in Morris would prevent the strap from sliding back through the aperture. Indeed, Morris explicitly states that the end portion 19 is “too large to be pulled through the slot.” Morris at 2:9–12. Thus, using the end portion as taught by Morris would be an obvious substitute for the end portions in the combination of Thorne and Lister to prevent the strap from sliding back through the apertures.

### 3. Claim 17

It is my opinion that claim 17 is invalid under 35 U.S.C. § 103. Claim 17 is dependent upon claim 15 and the limitations of claim 15 are met as previously shown. The following claim chart shows the application of Thorne, Lister and Morris to claim 17:

Claim 17 of the '653 Patent	Reference
The bath spout cover of claim 15, wherein the at least two apertures comprised two apertures, one on each opposing side portion.	<p>Lister discloses two apertures, one on each opposing side portion. <i>See</i> Lister at FIG. 1. FIG. 1 of Lister is reproduced below with annotation:</p>

It is my opinion that claim 18 is invalid under 35 U.S.C. § 103. Claim 18 is dependent upon claim 15 and the limitations of claim 15 are met as previously shown. The following claim chart shows the application of Thorne, Lister, and Morris to claim 18:

Claim 18 of the '653 Patent	Reference
The bath spout cover of claim 15, wherein the body structure is comprised of an elastomeric material.	<p>Thorne discloses that the body structure can be made of a deformable material, including soft rubber, flexible foam, or a soft plastic. <i>See</i> Thorne at paragraphs [0017] and [0032].</p>

As I indicate in the chart above, Thorne discloses that the body structure can be made of a deformable material, including soft rubber, flexible foam, or a soft

plastic. Thorne at paragraphs [0017] and [0032]. Additionally, in the prosecution history of “653 Patent, the Examiner rejects claim 18 based on obviousness in view of the disclosure in Thorne. *See* File History at page 36 (4/10/2015 Office Action). In my opinion, it would be obvious to use an elastomeric material that optimizes the performance of the product, such as soft rubber, flexible foam, or soft plastics to make the spout cover soft to protect against possible injury.

## **5. Claim 19**

It is my opinion that claim 19 is invalid under 35 U.S.C. § 103. Claim 19 is dependent upon claim 18, and the limitations of claim 18 are met as previously shown. The following claim chart shows the application of Thorne, Lister, and Morris to claim 19:

<b>Claim 19 of the ‘653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 18, wherein the strap is comprised of an elastomeric material.	Thorne discloses that its strap can be comprised of a deformable material. <i>See</i> Thorne at paragraph [0037].

As I describe in the chart above, Thorne discloses that its strap can be comprised of a deformable material. For example, Thorne states that the strap may be an elastic band, which constitutes a strap comprised of an elastomeric material. *See* Thorne at paragraph [0037]. Additionally, in the prosecution history of the ‘653 Patent, the Examiner rejected claim 19 based on obviousness in view of the disclosure in Thorne. *See* File History at page 36 (4/10/2015 Office Action). In my



opinion, it would be obvious to use an elastic band as taught by Thorne to attach the bath spout cover to the spout.

**6. Claim 20**

It is my opinion that claim 20 is invalid under 35 U.S.C. § 103. Claim 20 is dependent upon claim 15 and the limitations of claim 15 are met as previously shown. The following claim chart shows the application of Thorne, Lister, and Morris to claim 20:

<b>Claim 20 of the ‘653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 15, wherein the body structure is comprised of an elastomeric material having a Shore A hardness of about 55 to about 95.	Thorne discloses that the body structure can be made of a deformable material, including soft rubber, flexible foam, or a soft plastic. <i>See</i> Thorne at paragraphs [0017] and [0032]. And Thorne further teaches that the elastomeric material should have a Shore hardness of at least 20 (OO Scale). <i>See</i> Thorne at paragraph [0017].

As I state in the chart above, Thorne teaches that the elastomeric material should have a Shore hardness of *at least* 20 on the Shore OO hardness scale. *See* Thorne at paragraph [0017]. A Shore A hardness of about 55 to 95 is at least 20 on the Shore OO hardness scale. And, in my opinion, it would be obvious to use an elastomeric material that optimizes the performance of the product, and in this case the material that is within the Shore A range of 55 to 95.

**7. Claim 21**

It is my opinion that claim 21 is invalid under 35 U.S.C. § 103. Claim 21 is dependent upon claim 20 and the limitations of claim 20 are met as previously

shown. The following claim chart shows the application of Thorne, Lister, and Morris to claim 21:

<b>Claim 21 of the ‘653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 20, wherein the elastomeric material has a Shore A hardness of about 75 to about 85.	Thorne discloses that the body structure can be made of a deformable material, including soft rubber, flexible foam, or a soft plastic. <i>See</i> Thorne at paragraphs [0017] and [0032]. And Thorne further teaches that the elastomeric material should have a Shore hardness of at least 20 (OO Scale). <i>See</i> Thorne at paragraph [0017].

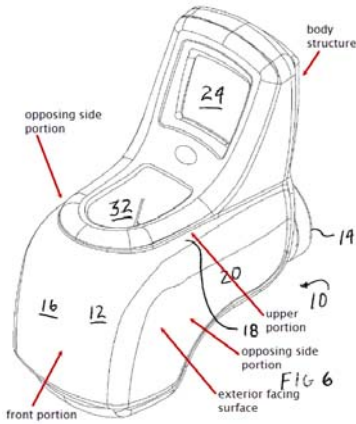
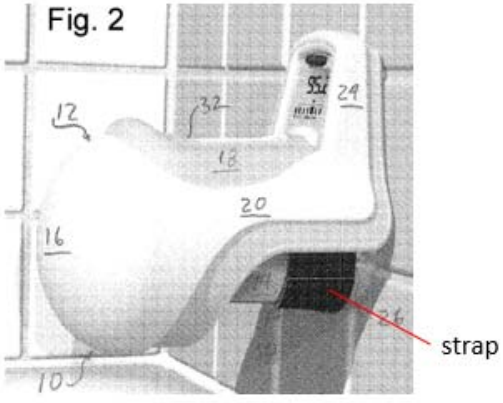
As noted in the chart above, and regarding claim 20, Thorne teaches that the elastomeric material should have a Shore hardness of *at least* 20 on the Shore OO hardness scale. *See* Thorne at paragraph [0017]. A Shore A hardness of about 75 to 85 is at least 20 on the Shore OO hardness scale. And, in my opinion, it would be obvious to use an elastomeric material that optimizes the performance of the product, and in this case, a material that is within the Shore A range 75 to 85.

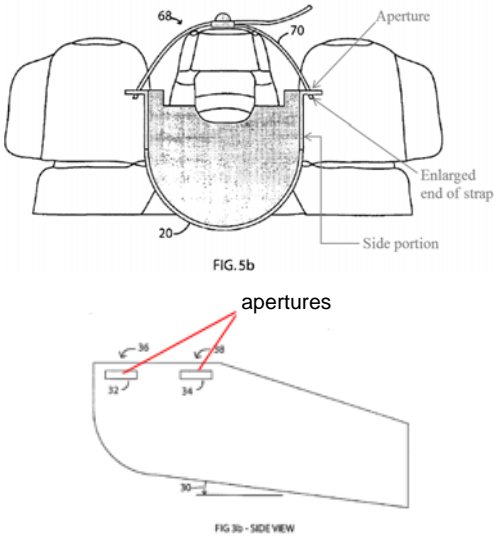
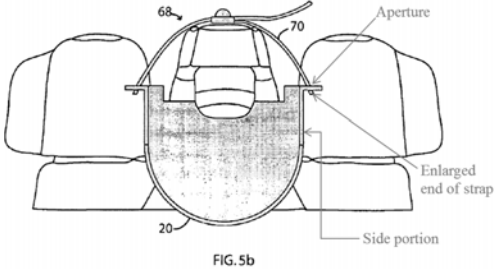
**B. Claims 15–21 are invalid as obvious based on the combination of Thorne in view of Daniels.**

**1. Claim 15**

It is my opinion that claim 15 is unpatentable under § 103. The follow claim charts shows the application of Thorne and Daniels to claim 15:

<b>Claim 15 of the ‘653 Patent</b>	<b>Reference</b>
A bath spout cover, comprising:	Thorne discloses a bath spout cover at the Abstract and in paragraphs [0003] and [0032].
a body structure with an exterior facing surface, the body structure having an upper portion, two opposing side	The bath spout cover in Thorne has a body structure 10 that has an exterior facing surface, an upper portion 18, two opposing side portions 20 and 22, and a front portion 16. <i>See</i>

<p>portions, and a front portion;</p>	<p>Thorne at FIG. 6, and paragraphs [0032] and [0034]. FIG. 6 from Thorne is reproduced below with annotation:</p> 
<p>a receiving area defined between the upper portion, the two opposing side portions, and the front portion;</p>	<p>The bath spout cover in Thorne further includes a receiving area that is defined between the upper portion 18, the two opposing side portions 20 and 22, and the front portion 16. <i>See</i> Thorne at FIGs. 2 and 11, and paragraph [0035].</p>
<p>at least one aperture through one of the side portions, and a strap spanning the two opposing side portions and traversing the at least aperture</p>	<p>Thorne discloses a strap 26 that is connected to and spans the opposing side portions 20 and 22. <i>See</i> Thorne at FIGs. 2 and 4, and paragraph [0037]. FIG. 2 of Thorne is reproduced below with annotation:</p>  <p>Daniels discloses a water spout extender having a strap, the ends of which pass through an aperture in a sidewall, for example at FIG. 5b. FIG. 5b of Daniels is reproduced below with annotation, showing the strap traversing the apertures. FIG. 3b is reproduced below</p>

	<p>with annotation to more clearly illustrate the apertures:</p>  <p>FIG. 5b</p> <p>FIG 3b - SIDE VIEW</p>
<p>an end portion of the strap having a dimension larger than a dimension of the aperture, said end portion extending through said aperture and extending along the exterior facing surface of the body wherein part of the end portion abuts the exterior facing surface of the body structure, thereby holding the strap in place,</p>	<p>As noted above, both Thorne and Daniels disclose a strap. <i>See</i> Thorne at FIGs. 2 and 4, and paragraph [0037]. <i>See</i> also Daniels at FIGs. 3b and 4b, for example.</p> <p>Daniels teaches that an end portion of a strap can have a dimension larger than a dimension of the aperture such that the end portion extends through the aperture and the exterior facing surface of the body, wherein part of the end portion abuts the exterior facing surface of the body structure to hold the strap in place. <i>See</i> Daniels at FIG. 5b, and paragraphs [0020], [0021], and [0028]. FIG. 5b is reproduced below with annotation:</p>  <p>FIG. 5b</p>
<p>said strap for securing the bath</p>	<p>As noted above, Thorne states that the strap 26</p>

spout cover to a bath spout.	is used to secure the bath spout cover 10 to a bath spout. <i>See</i> Thorne at FIGs. 2 and 4, and paragraphs [0037] and [0040].
------------------------------	----------------------------------------------------------------------------------------------------------------------------------

Thorne would be combined with Daniels to meet the limitations of claim 15 for the same reasons I provided previously in Section VIII.B.1. regarding claim 12.

It is my opinion that one of ordinary skill in the art would combine Thorne with Daniels to meet the limitation “an end portion of the strap having a dimension larger than a dimension of the aperture, said end portion extending through said aperture and extending along the exterior facing surface of the body wherein part of the end portion abuts the exterior facing surface of the body structure, thereby holding the strap in place,” because doing so would merely involve using a known element (the enlarged end portions in Daniels) according to known methods, the result of which would be entirely predictable. One of ordinary skill in the art would incorporate the Daniels strap into the Thorne bath spout cover such that the enlarged ends extend through the aperture and along the exterior facing surface, the enlarged ends holding the strap in place.

Incorporating the strap of Daniels into the Thorne and Daniels combination would be a suitable and cost effective method of attaching a strap, and would be appropriate with the bath spout cover of Thorne and Daniels. Indeed, using the Daniels strap in this way would be merely combining familiar elements according to a known method to reach a predictable result.

## 2. Claim 16

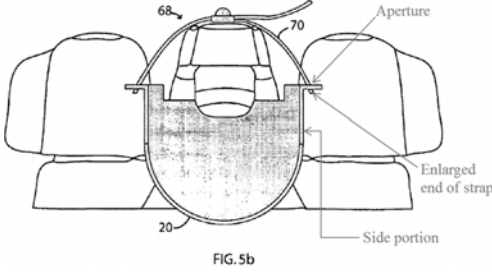
It is my opinion that claim 16 is invalid under § 103. Claim 16 depends from claim 15, and claim 15 is met as set forth above. The following claim chart shows the application of Thorne and Daniels to claim 16:

<b>Claim 16 of the '653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 15, wherein the end portion abutting the exterior surface prevents the strap from sliding back through the at least one aperture.	Daniels teaches that its enlarged end portions are used to prevent the strap from sliding back through the apertures. <i>See</i> Daniels at paragraphs [0020], [0021], and [0028].

As I stated immediately above regarding claim 15, it would be obvious to combine Thorne with Daniels to meet the claimed limitations, because using the Daniels strap in the combination of Thorne and Daniels would necessarily result in the strap being prevented from sliding back through the apertures. Daniels does expressly state that the end portions are designed for this purpose. *See* Daniels at paragraphs [0020], [0021], and [0028]. Thus, this combination would be obvious for this purpose.

## 3. Claim 17

It is my opinion that claim 17 is invalid under § 103. Claim 17 depends from claim 15, and claim 15 is met as set forth above. The following claim chart shows the application of Thorne and Daniels to claim 17:

<b>Claim 17 of the '653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 15, wherein the at least two apertures comprised two apertures, one on each opposing side portion.	<p>Daniels teaches two apertures, one on each side portion. See Daniels at FIG. 5b, for example. FIG. 5b is reproduced below with annotation:</p> 

Thorne would be combined with Daniels as described above, and the resulting combination would include one aperture on each opposing side portion. The incorporated strap of Daniels would extend through each of those apertures in order to fasten the Thorne bath spout cover to a bath spout, and the Daniels end portions on each end of the strap would prevent the strap from simply passing back through the apertures.

#### 4. **Claim 18**

It is my opinion that claim 18 is invalid under § 103. Claim 18 depends from claim 15, and claim 15 is met as set forth above. The following claim chart shows the application of Thorne and Daniels to claim 18:

<b>Claim 18 of the '653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 15, wherein the body structure is comprised of an elastomeric material	<p>Thorne discloses that the body structure can be made of a deformable material, including soft rubber, flexible foam, or a soft plastic. For example, the body may be made of soft rubber, flexible foam, or soft plastics. <i>See</i> Thorne at paragraphs [0017] and [0032].</p>

As I indicate in the chart above, Thorne discloses that the body structure can be made of a deformable material, including soft rubber, flexible foam, or a soft plastic. *See* Thorne at paragraphs [0017] and [0032]. Additionally, in the prosecution history of “653 Patent, the Examiner rejects claim 18 based on obviousness in view of the disclosure in Thorne. *See* File History at page 36 (4/10/2015 Office Action). In my opinion, it would be obvious to use an elastomeric material that optimizes the performance of the product, such as soft rubber, flexible foam, or soft plastics to make the spout cover soft to protect against possible injury.

## 5. Claim 19

It is my opinion that claim 19 is invalid under § 103. Claim 19 depends from claim 18, and claim 18 is met as set forth above. The following claim chart shows the application of Thorne and Daniels to claim 19:

<b>Claim 19 of the ‘653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 18, wherein the strap is comprised of an elastomeric material.	Thorne discloses that its strap can be comprised of a deformable material. <i>See</i> Thorne at paragraph [0037].

As I describe in the chart above, Thorne discloses that its strap can be comprised of a deformable material. For example, Thorne states that the strap may be an elastic band, which constitutes a strap comprised of an elastomeric material. *See* Thorne at paragraph [0037]. Additionally, in the prosecution history of the



‘653 Patent, the Examiner rejected claim 19 based on obviousness in view of the disclosure in Thorne. *See* File History at page 36 (4/10/2015 Office Action). In my opinion, it would be obvious to use an elastic band as taught by Thorne to attach the bath spout cover to the spout.

**6. Claim 20**

It is my opinion that claim 20 is invalid under § 103. Claim 20 depends from claim 15, and claim 15 is met as set forth above. The following claim chart shows the application of Thorne and Daniels to claim 20:

<b>Claim 20 of the ‘653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 15, wherein the body structure is comprised of an elastomeric material having a Shore A hardness of about 55 to about 95.	Thorne discloses that the body structure can be made of a deformable material, including soft rubber, flexible foam, or a soft plastic. <i>See</i> Thorne at paragraphs [0017] and [0032]. And Thorne further teaches that the elastomeric material should have a Shore hardness of at least 20 (OO Scale). <i>See</i> Thorne at paragraph [0017].

As I state in the chart above, Thorne teaches that the elastomeric material should have a Shore hardness of *at least* 20 on the Shore OO hardness scale. *See* Thorne at paragraph [0017]. A Shore A hardness of about 55 to 95 is at least 20 on the Shore OO hardness scale. And, in my opinion, it would be obvious to use an elastomeric material that optimizes the performance of the product, and in this case the material that is within the Shore A range of 55 to 95.

## 7. Claim 21

It is my opinion that claim 21 is invalid under § 103. Claim 21 depends from claim 20, and claim 20 is met as set forth above. The following claim chart shows the application of Thorne and Daniels to claim 21:

<b>Claim 21 of the ‘653 Patent</b>	<b>Reference</b>
The bath spout cover of claim 20, wherein the elastomeric material has a Shore A hardness of about 75 to about 85.	Thorne discloses that the body structure can be made of a deformable material, including soft rubber, flexible foam, or a soft plastic. <i>See</i> Thorne at paragraphs [0017] and [0032]. And Thorne further teaches that the elastomeric material should have a Shore hardness of at least 20 (OO Scale). <i>See</i> Thorne at paragraph [0017].

As noted in the chart above, and regarding claim 20, Thorne teaches that the elastomeric material should have a Shore hardness of *at least* 20 on the Shore OO hardness scale. *See* Thorne at paragraph [0017]. A Shore A hardness of about 75 to 85 is at least 20 on the Shore OO hardness scale. And, in my opinion, it would be obvious to use an elastomeric material that optimizes the performance of the product, and in this case, a material that is within the Shore A range 75 to 85.

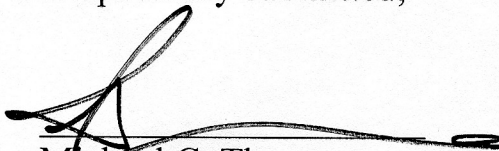
## X. CONCLUSION

Based on the statement and illustrations provided above, it is my opinion that claims 12–21 of the ‘653 Patent are invalid as being obvious to one of ordinary skill in the art at the time of the invention claimed in the ‘653 Patent, based on combinations of Thorne in view of Lerner, Lister, Daniels and/or Morris.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. § 1001.

January 29, 2016

Respectfully submitted,



Michael C. Thuma