

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DBR FINANCE, INC.,
Petitioner,
v.

RUGGED CROSS HUNTING BLINDS, LLC,
Patent Owner.

Patent 11,399,535
Filing Date: June 11, 2021
Issue Date: August 2, 2022
Title: CAMOUFLAGE MATERIAL, FOR A HUNTING BLIND

Inter Partes Review No.: IPR2024-00291

**DECLARATION OF MICHAEL ELLISON, Ph.D. IN SUPPORT OF
PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE**

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I. INTRODUCTION

A. Statement of Declarant

- 1) The facts set forth below are known to me personally and I have firsthand knowledge of them. I am a U.S. citizen over eighteen years of age. I am fully competent to testify as to the matters addressed in this Declaration. I understand that this Declaration is being submitted along with Petitioner's Reply to Patent Owner's Response, in *inter partes* review of US Patent No. 11,399,535 B2 (the '535 Patent), entitled CAMOUFLAGE MATERIAL FOR A HUNTING BLIND, IPR2024-00291.
- 2) In this declaration I was asked to respond to the arguments raised in Patent Owner's Response. Paper 17.

B. Materials Considered

- 3) In forming the opinions expressed herein, in addition to the materials listed in my original declaration in this matter, I have reviewed and considered the following additional materials:
- 4) Patent Owner's Response ("POR"), Paper 17.
- 5) Ex. 1012, Walczak, Zbigniew K., Formation of Synthetic Fibers, pp. 53-54, 1977
- 6) Ex. 1013, Steward et al., "An Overview of Polymer Latex Film Formation and Properties", Advances in Colloid and Interface Science, p. 195, 2000

- 7) Ex. 1014, Ameristep® Quality Hunting, Penthouse TSC™ Blind, Instruction Manual, Rev. 4/05, April 2005
- 8) Ex. 1015, U.S. Patent No. 9,140,030 (Jin)
- 9) Ex. 1016, U.S. Provisional Application No. 62/301,007
- 10) Ex. 1017, https://grahamsg.com/polyester-porthole-mesh-practice-football-jersey-by-champro-sports-style-number-fj2.html?srsltid=AfmBOoo_vDMPyGvj_9N_q0gAJ8oQwrijxfwuArbeD_zJozjdceb6hGLJ
- 11) Ex. 1018, Kalloniatis et al., Webvision, The Organization of the Retina and Visual System, Part VIII, Psychophysics of Vision, Visual Acuity, Nov. 2013
- 12) Ex. 1019, Transcript of the Deposition of Mr. Christopher Seaton, taken on October 29, 2024
- 13) Ex. 1020, Transcript of the Deposition of Mr. Jason Harris, taken on October 31, 2024
- 14) Ex. 1021, Transcript of the Deposition of Mr. Jay Scholes, taken on November 1, 2024
- 15) Ex. 1022, Transcript of the Deposition of Mr. Robert Ransom, taken on October 30, 2024
- 16) Ex. 1023, Transcript of the Deposition of Dr. Kimberly Cameron, Vol. I, taken on November 5, 2024
- 17) Ex. 1024, Transcript of the Deposition of Dr. Kimberly Cameron, Vol. II, taken on November 6, 2024

- 18) Ex. 1026, U.S. Patent No. 10,765,108 (Seaton
- 19) Ex. 1027, Nondestructive Evaluation Techniques, Visual Acuity of the Human Eye, Iowa State University, Center for Nondestructive Evaluation,
<https://www.nde-ed.org/NDETechniques/PenetrantTest/Introduction/visualacuity.xhtml>
- 20) Ex. 2031, Declaration of Dr. Kimberly Cameron
- 21) Ex. 2032, Declaration of Christopher Seaton
- 22) Ex. 2033, Declaration of Jason Harris
- 23) Ex. 2034, Declaration of Robert Ransom
- 24) Ex. 2035, Declaration of Jay Scholes

**C. PROVISIONAL APPLICATION 62/301,007 DOES NOT PROVIDE
WRITTEN DESCRIPTION SUPPORT FOR THE CLAIMS OF THE
'535 PATENT**

- 25) I have been informed that in order for an issued patent to receive a priority date associated with a claim for priority, that the priority document needs to meet all the requirements of 35 U.S.C. § 112(a), which reads:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

- 26) I have also been informed the Section 112(a) highlighted above has three requirements: (1) a written description requirement, (2) an enablement requirement, and (3) a best mode requirement. I have also been informed that to satisfy the written description requirement under 35 U.S.C. § 112(a), the detailed description of the application at issue must describe the claimed invention in sufficient detail that a PHOSITA can reasonably conclude that the inventor had possession of the claimed invention at the time of filing. In conjunction with this requirement, as a PHOSITA, I have been asked to review the priority document claimed in the '535 patent, that is, U.S. provisional application 62/301,007, to determine whether the provisional patent application provides written description support for the claims of the '535 Patent.
- 27) Upon reviewing the patent owner's (PO's) priority document, U.S. provisional 62/301,007, it is my opinion that it fails to satisfy the written description requirement. Consequently, the priority date of the '535 patent extends back to that of earlier continuation applications (which is February 28, 2017), but does not extend back to the filing date of the priority application (i.e., the provisional application), which is February 29, 2016. Based on discussions with patent counsel, it is my understanding that this difference in priority date increases the world of prior art that may be "available" prior art with respect to the '535 Patent.

28) In order to evaluate the written description requirement with respect to the claims of the ‘535 Patent, I first need to evaluate what is being claimed in the ‘535 Patent. Both independent claims 1 and 19 recite, among other things, elements [1B] and [19B], respectively, which recites:

a pop-up frame including a plurality of flexible frame members, said plurality of flexible frame members comprising at least two spaced apart frame members along a side of the camouflage structure and at least two spaced apart frame members along a roof of the camouflage structure....

29) Upon reading these claim elements, I understand each to require three distinct features: (1) the frame must be composed of multiple flexible frame members, (2) that at least two flexible frame members must be spaced apart from one another along a side of the structure, and (3) at least two flexible frame members must be spaced apart from one another along the roof of the structure. Therefore when I evaluate the description of the priority document (provisional application 62/301,007), I will be determining whether the description and drawings collectively disclose these three features to a PHOSITA in such a manner that a PHOSITA can reasonably conclude that the inventor had possession of the claimed invention (at least these three features) at the time of filing the provisional application.

30) Upon reading the U.S. provisional application 62/301,007 in detail in conjunction with the drawings, it is my opinion that the specification of U.S. provisional

application 62/301,007 does not disclose a pop-up frame having: (1) flexible frame members, (2) at least two flexible frame members spaced apart along a side of the structure, and (3) at least two flexible frame members spaced apart along a roof of the structure. Almost the entire disclosure in the provisional application is directed to a fixed-structure type hunting blind that resembles a shed type structure. The discussion in 62/301,007 that relates to a pop-up frame that is different than a fixed-structure hunting blind is found in paragraph [0032] and claim 12. Paragraph [0032] reads as follows:

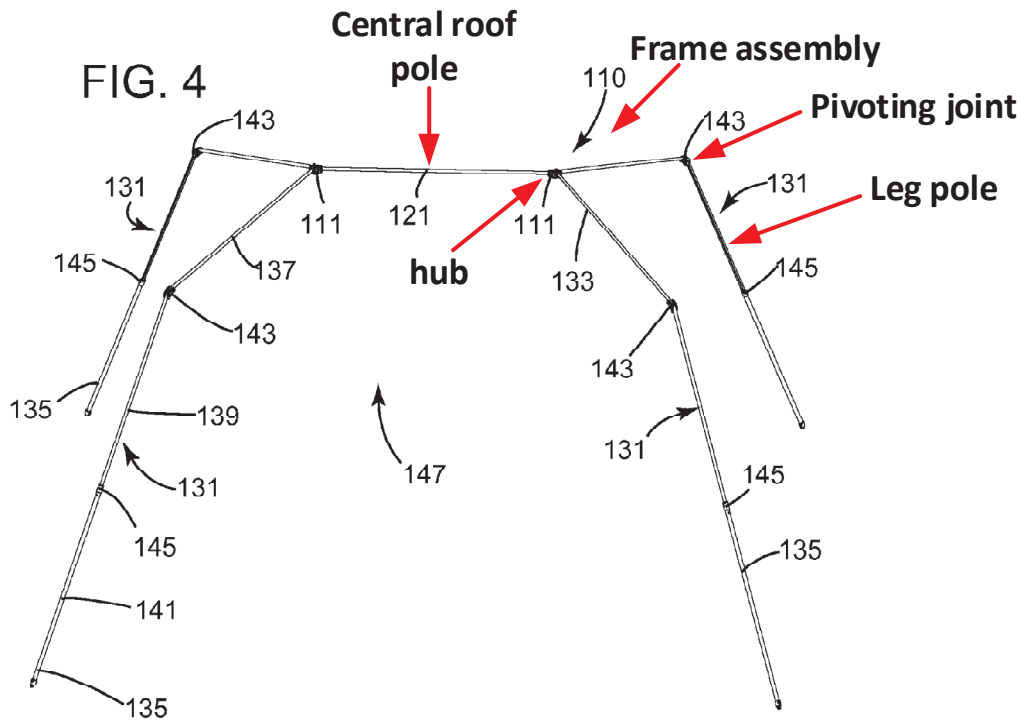
Although the frame 12 of the hunting blind 10 is a fixed frame including interconnected extruded members, the frame 12 of the hunting blind is not limited to a fixed frame and may include a pop-up frame with foldable frame members. In an example embodiment, the pop-up frame includes panels 24 of the camouflage material 26 secured between the foldable frame members such that when the frame is moved from a folded position to a deployed position, the exterior of the hunting blind is visible through the panels 24 from the interior of the hunting blind yet the interior of the hunting blind is not visible through the panels 24 from the exterior of the hunting blind.
Ex.1016, at 29.

- 31) The provisional priority document provides disclosure for a pop-up frame with foldable frame members, but a foldable frame member is not the same as a flexible frame member. More particularly, a foldable frame member typically has at least two portions that are themselves each rigid, but connect at some pivot point that allows one or both to fold with respect to another. For example, a folding chair may have pieces that are rigid, but are connected via pivot type structures that

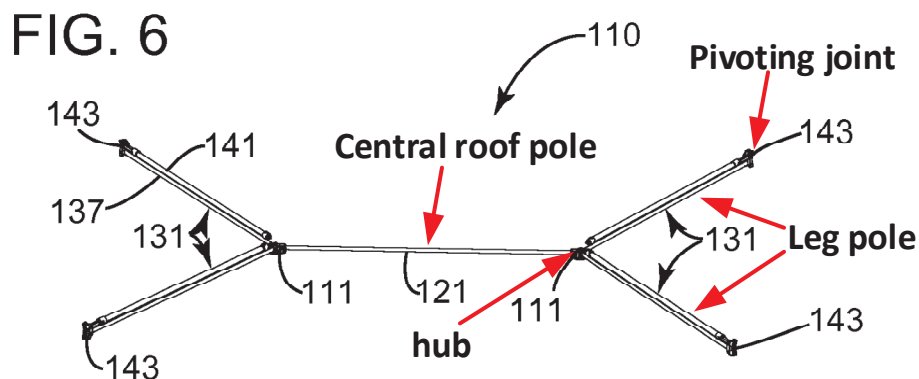
allow the chair to change between a folded position for storage or a deployed position for use. Another example is a table that has, for example, four rigid legs that connect to the face of the table via pivot structures. The legs can then pivot or fold from a deployed position into a storage position. This same principle also applies to hunting blinds and other tent type structures.

- 32) This characteristic of a foldable frame member as distinct from a flexible frame member can be seen clearly in Ex. 1015, which is an issued U.S. Patent No. 9,140,030 that shows in Fig. 4 a tent that can be employed as a hunting blind having rigid, foldable frame members. Ex. 1015, 6:19-20. Fig. 4 shows a frame assembly 110 that has a central roof pole 121 having hubs 111 (that act as pivoting structures) attached thereto, to which leg poles 131 are attached via pivoting joints

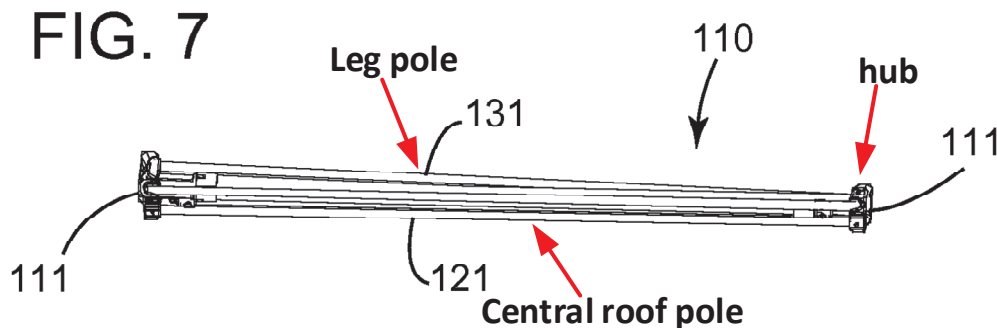
143.



33) As shown in Fig. 6 below, the rigid leg poles or frame members 131 fold about their respective pivoting joints 143 from a deployed position to a folded or storage type position.



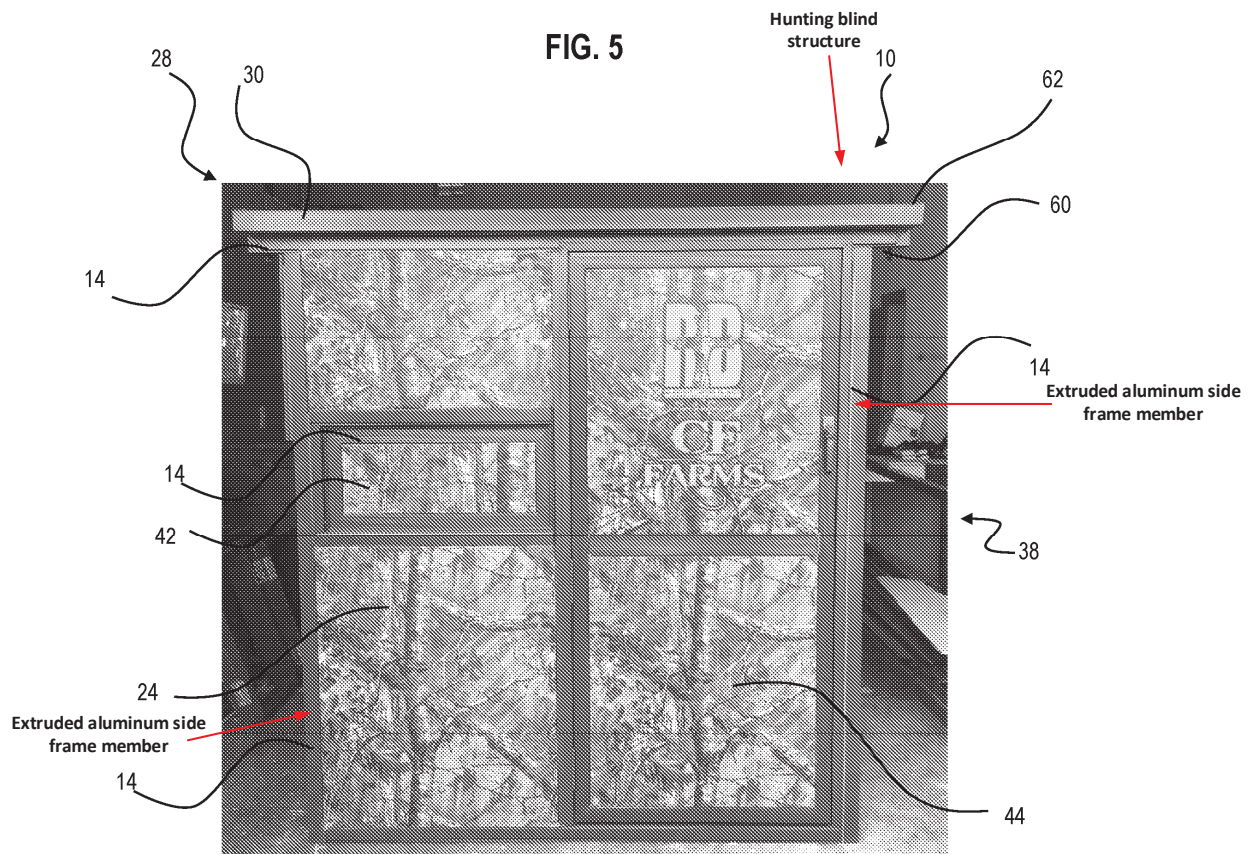
- 34) Then as shown in Fig. 7 below, the folded leg poles 131 fold over their central roof pole 121 via their respective hubs 111 that behave as a pivoting structure to form a folded frame assembly of rigid frame members.



- 35) As can be seen from Ex.1015, a PHOSITA readily appreciates that a folded frame member does not constitute a disclosure or a suggestion of a flexible frame member, and thus a PHOSITA, upon reading paragraph [0032] and the entirety of Provisional application 62/301,007, would not reasonably conclude that the inventor had possession of the claimed invention (i.e., a pop-up frame having a plurality of flexible frame members) at the time of filing thereof.
- 36) More particularly, the provisional application that the '535 claims priority to does not disclose a plurality of flexible frame members as recited in independent claims 1 and 19. The provisional application solely discusses and/or illustrates foldable, rigid frame members, and the term “foldable” neither discloses nor suggests a “flexible” frame member as claimed in the '535 patent. That is, a foldable frame member provides no teaching, either express or implied, to a PHOSITA that the

member is flexible. Rather, it solely indicates that the frame member can fold about a pivot point to move or extend the member between two positions, a folded position and a deployed position.

- 37) Regarding the additional claim features: at least two flexible frame members spaced apart along a side of the structure, and at least two flexible frame members spaced apart along a roof of the structure, provisional application 62/301,007 does not provide the requisite written description support. For example, while Fig. 5 of the priority document provided below shows multiple frame members 14 that are spaced apart along a side of the structure 10, such frame members 14 are not flexible as claimed, but instead are elongated extruded aluminum members, and thus are rigid. Ex. 1016, ¶¶26-28.



38) In addition, the provisional application describes a roof 28 made by panels 30 secured to an extruded frame member 14 at a corner of the structure 10. Ex.1016, ¶28. While these frame members do not appear to be shown in Fig. 5 or other relevant figures, even if such frame members can be understood by the text as being spaced apart along the roof, such frame members are not flexible as claimed, but rather are rigid. Therefore, a PHOSITA, upon reading paragraph [0032] and the entirety of Provisional application 62/301,007, would not reasonably conclude that the inventor had possession of the claimed invention (i.e., a pop-up frame

having a plurality of flexible frame members with at least two flexible frame members spaced apart along a side of the structure, and at least two flexible frame members spaced apart along a roof of the structure) at the time of filing thereof.

Therefore, based on the standard an application document must meet to satisfy the written description standard, it is my opinion that the provisional application 62/301,007 fails to satisfy the written description requirement under 35 U.S.C.

§ 112(a) for at least the claim features listed above for independent claims 1 and 19. Further, as all the remaining claims depend upon either claim 1 or claim 19, all the depending claims further require flexible frame members, and consequently none of the claims of the '535 patent have a priority date of February 29, 2016 as alleged, because the provisional application does not satisfy the written description requirement for the claimed invention of the '535 Patent. Rather, the proper priority date for all the claims at issue is February 28, 2017.

II. THE GENERAL KNOWLEDGE OF A PHOSITA INFORMS MY ANALYSIS WHEN CONSIDERING WHETHER A TEACHING IN ONE PRIOR ART REFERENCE PROVIDES A MOTIVATION TO MODIFY ANOTHER PRIOR ART REFERENCE

39) The POR states that Ground One of the Petition is Whybrew in view of Strength, not Whybrew in view of Strength in view of the knowledge of a PHOSITA. Paper 17, at 17. However, it is my understanding, upon conferring with patent counsel, that the general knowledge of a PHOSITA is always available when I am

considering whether motivation exists to modify a prior art reference, and this seems like common sense to me.

- 40) I have been informed that each of Exhibits 2032-E, 2032-F and 1014 are available prior art based on the priority date of February 28, 2017. As such I can review the substance of each of these references, and their content serves to reflect the general knowledge of a PHOSITA in the field of hunting blinds, as each of these exhibits discuss and illustrate prior art hunting blinds.
- 41) PO displayed the Austin hunting blind at the 2016 NWTF Convention in February 2016 in Nashville, TN. Ex. 2032, ¶19. Christopher Seaton admitted that the Austin hunting blind included a mesh material having a camouflage pattern on a first exterior side and a dark color on a second, interior side thereof. Ex. 2032, ¶23. Subsequent to the show, immediately thereafter, a review of the Austin blind was published on February 17, 2016. The review discussed and showed the Austin blind that employed the mesh material. Ex. 2032, ¶27 (citing Ex. 2032-E). In the publication, Josh Honeycutt of Realtree, the author of the publication, in discussing the Austin blind mesh material, stated: “[t]he camo material is completely see-through from the inside, but it prevents anyone—or anything—on the outside seeing in.” Ex. 2032, ¶28 (citing Ex. 2032-E). As Realtree is a commercial company that designs camouflage patterns, this publication, Ex. 2032-E, reflects the general knowledge of a PHOSITA as it relates to mesh material in hunting

blinds more than one year prior to the priority date of the '535 patent. As a PHOSITA, it tells me that a mesh material having camouflage on one side and a dark color on the other side provides significant advantages to a hunting blind that presently employs a mesh window without these features, as it describes an improvement in one-way viewing.

- 42) Similarly, after the 2016 NWTF show, Brodie Swisher of Bowhunting.com published a review on February 16, 2016, that discusses the mesh material of the Austin blind. In this publication, it states: “[t]he really cool feature of this material is that you can see out, but game cannot see in.” Ex. 2032, ¶30 (citing to Ex. 2032-F). As the author writes for Bowhunting.com and comments on products in the hunting industry, Ex. 2032-F reflects the general knowledge of a PHOSITA as it relates to mesh material in hunting blinds more than one year prior to the priority date of the '535 patent. As a PHOSITA, I readily take from this prior art reference that a mesh material having a camouflage pattern on one side and a dark color on a second side provides significant improvement for a hunting blind that employs a mesh fabric window, as this feature greatly improves one-way viewing.
- 43) Ameristep PenthouseTM (Ameristep) is an instruction manual that published in 2005, more than one year before the priority date of the '535 patent, and is available prior art. Ex. 1014. Ameristep shows a camouflage hunting blind, as

shown below in Fig. A, wherein a camouflage exterior has a mesh door and a mesh window having a camouflage pattern thereon.

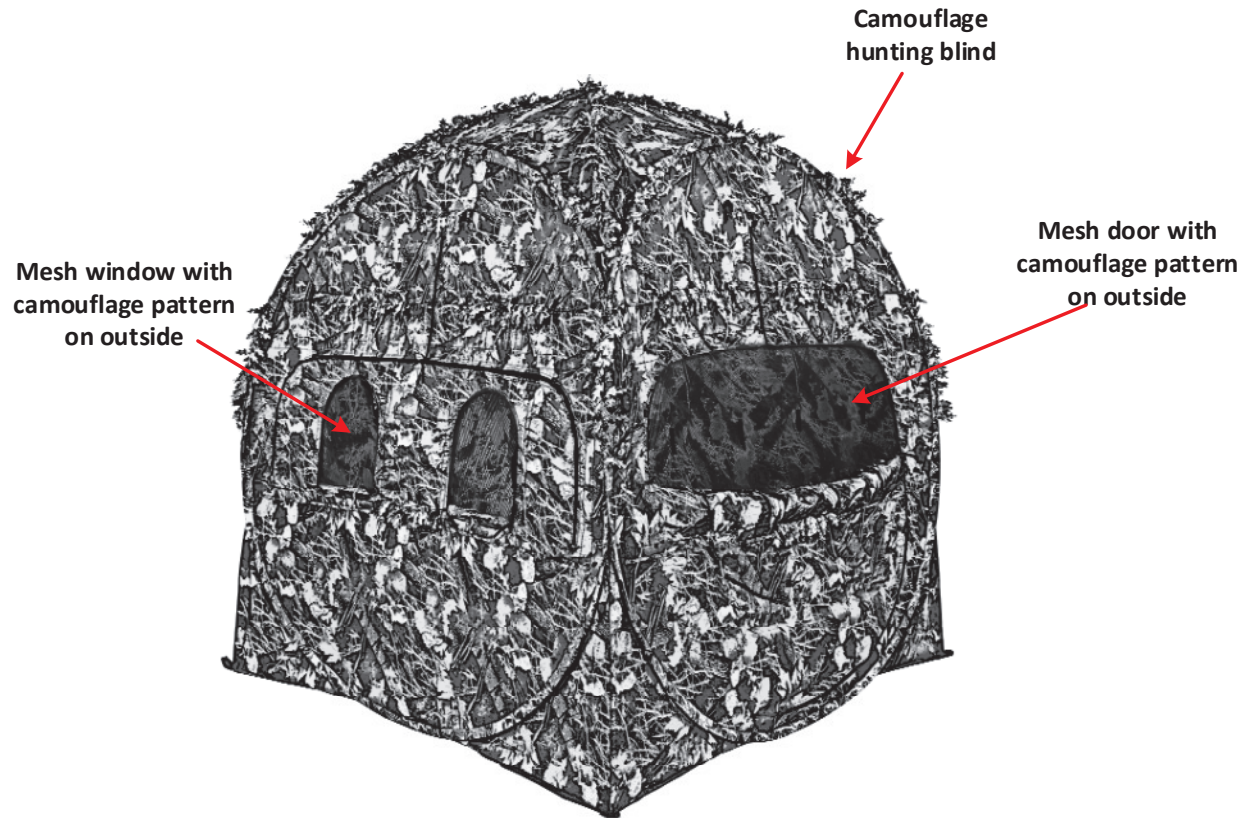


FIG. A

- 44) The Ameristep blind uses what it calls a ShadowGuard technology, as shown in Fig. C, which includes a black color or lining on an inside of the mesh window and door to prevent shadows or silhouettes inside the blind when an occupant is inside.
- Ex.1014, p. 4.

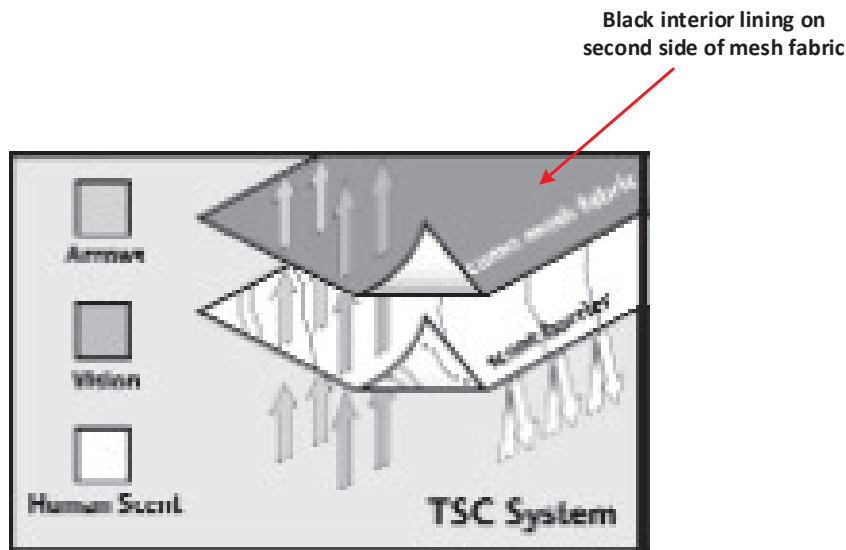


FIG. C

45) Taken alone, this disclosure appears to indicate that a mesh window with camouflage on one side and a dark color, such as a black lining, on the other side reduces shadowing inside the blind to improve one-way viewing. Further, Robert Ransom, the President of Ameristep at the time of the development and sale of the Penthouse Blind™, stated:

Q. And the mesh windows here had camouflage printed on them, correct?

A. Correct.

Q. Okay. So I want to go down a little bit to -- this is the last page where it's got "Windows Installation Instructions." Do you see that?

A. Yes.

Q. And in the middle of this page, there is a section that says "the Ameristep Total Scent Containment (TSC) System Works." Do you see that?

A. Yes, yes.

Q. And it describes the TSC system as a "black ShadowGuard interior lining" for the window membranes, right?

A. Yes.

Q. And so it further says, "The ShadowGuard interior lining not only eliminates shadows and silhouettes, it also contains human scent within the blind," correct?

A. Correct.

Q. And it describes these windows as "see-through, shoot-through TSC windows," correct?

A. Correct.

Q. And it promotes these in part as "enabling hunters to remain completely concealed within the blind while still being able to see and shoot." Do you see that?

A. Yes.

Q. And would you agree with me that the concept of the black interior lining is to promote this concept of concealing the hunter within the blind, right?

A. Yes. Ex. 1022, at 61-62.

- 46) As a PHOSITA, upon reviewing the Ameristep instruction manual and reading the testimony of Robert Ransom, the President of Ameristep at that time, I conclude that a mesh window having camouflage on one side and a dark color such as a black lining on the other side will reduce silhouettes and shadowing within the hunting blind, and thus improve a one-way viewing feature.
- 47) In the original Petition, Petitioner argued a modification of the mesh window 24 in Whybrew in view of the teachings of Strength, which discloses a mesh fabric having camouflage on the outside and a black coating on the inside to reduce light transmission therethrough, results in the claim features [1C]-[1E] and [19C]-[19E]. Paper 1, at 36-47. As a PHOSITA, Strength alone provides motivation for a modification that arrives at the claim features at issue. Further, when considering the general knowledge of a PHOSITA at the time of the invention, evidenced at

least by Exs. 2032-E, 2032F and 1014, a PHOSITA was aware of a one-way mesh material having camouflage on one side and a dark color on the other side that operated to improve one-way viewing. More particularly, as displayed by the PO at the 2016 NWTF Convention, as evidenced by Exs. 2032-E and 2032-F, a mesh material was known that had camouflage on the outside and a dark color on the inside, and it was known that such mesh hid an occupant within the blind from game outside the blind. Further, it was in the general knowledge of a PHOSITA, as evidenced by the Ameristep Penthouse™ blind that mesh windows having camouflage on the outside and a dark color lining on the inside existed and operated to hide an occupant within the blind from game outside the blind. Thus, a PHOSITA, knowing that Whybrew employs a one-way viewing feature with its mesh window 24 by exploiting a light differential between the blind interior and exterior, would modify the mesh window 24 to have a camouflage pattern on the outside as taught by Strength, and by Exs. 2032-E, 2032-F and Ex. 1014. Further, a PHOSITA would be further motivated to modify the mesh window 24 of Whybrew to have a dark color on the inside thereof as taught by Strength, as Strength teaches that the black coating reduces light transmission therethrough, thus further increasing the light differential to improve the one-way viewing feature. Lastly, use of the dark color on the inside of the mesh window 24 of Whybrew based on Strength is supported by the general knowledge of a PHOSITA

that highlights use of a mesh having a dark color on the interior side thereof to conceal an occupant within the blind from game outside the blind, as explicitly disclosed in Exs. 2032-E, 2032-F and Ex. 1014. Thus, the modification of Whybrew in view of Strength is proper and results in a panel of mesh material having a camouflage pattern on a first side and a dark color on a second, opposite side, as recited in features [1C]-[1E] and [19C]-[19E].

- 48) PO also argues that a combination of Whybrew and Strength (or a modification of Whybrew in view of Strength) is improper, alleging that Whybrew and Strength “teach away” from one another. Paper 17, at 28. Upon conferring with patent counsel, I have been informed that prior art references “teaches away” from one another when one or both discourage a PHOSITA from following a particular path or from combining references in a certain way. I understand that another way of considering this principle is that a reference teaches away when it contains disclosure that is specific enough to discourage a PHOSITA to attempt a combination.

When applying the standard above, it is my opinion that the teachings of Whybrew and Strength do not teach away from one another. According to PO’s argument, the purposes of Whybrew and Strength are contrary to one another. Paper 17, at 28. This is incorrect. Whybrew discloses using the entire body of the blind, that is, both the mesh and the non-translucent portions of the body, to create the light

differential for “one-way” viewing, Ex. 1002, 5:12-18, while Strength uses a dark color on a mesh interior to reduce the light transmission through, wherein a greater amount of dark pigment in the dark color results in less light transmission. Ex. 1003, Fig.2. Therefore it is my opinion that a PHOSITA would modify the mesh 24 of Whybrew in view of the teaching of Strength to further attenuate light transmission through the mesh, so that an increase in the light differential of Whybrew would result in an improvement of the “one-way” viewing feature.

III. POR’S ARGUMENTS FOR NON-OBVIOUSNESS ARE NOT PERSUASIVE

49) PO argues a PHOSITA would not modify Whybrew’s mesh to include a camouflage pattern on a first side. Paper 17, at 16. In my opinion, this is not correct. PO argues that Whybrew’s porthole mesh has large holes and that the large holes discourages a person from attempting to apply a pattern to the mesh. This does not make any sense, particularly when considering PO’s and PO’s expert’s comments on porthole meshes. For example, PO states that porthole meshes are regularly used for practice football jerseys, *Id.*, and such jerseys regularly have printed patterns on the jerseys, such as numbers, team logos, etc. Paper 17, at 16; Ex. 2031, ¶70; Ex. 1017. Further, a quick look at practice jerseys on the Internet show such porthole mesh jerseys with patterns printed on them. Ex.1017. As porthole mesh football jerseys regularly have patterns printed therein,

a PHOSITA, knowing that Whybrew contemplates at least a porthole mesh for its mesh window 24, Ex. 1002, 5:26-27, would readily appreciate that the porthole mesh of Whybrew could have a pattern printed thereon, and such a pattern would advantageously be a camouflage pattern to be consistent with the remaining camouflage fabric body 20 of the hunting blind, as Whybrew explicitly states that a principal object of the blind is to blend into the environmental setting in which it is used. Ex. 1002;3:34-36. Therefore it is my opinion that PO's argument is wrong. Namely, PO is wrong in arguing that a modification of Whybrew to include a camouflage pattern on the first side is improper.

- 50) The POR argues that Strength does not disclose a mesh, and in doing so provides a few different rationales: (1) no visible holes are shown in Fig. 1 of the Strength reference, (2) the black coating on the second side of Strength's mesh fabric fills all the holes and creates a solid barrier, and (3) despite an openness of 50%, the mesh fabric of Strength has a "very high" hole density compared to the mesh of the '535 Patent, making it unsuitable for sufficient ventilation, as set forth in the context of the '535 Patent. Paper 17, at 18-21.
- 51) Regarding the contention that Strength's fabric is not a mesh because there are no visible holes in the fabric shown in Fig. 1 (Paper 17, p. 18 (citing Ex. 2031, ¶¶74-75)), this contradicts my understanding of how terms are construed in a patent and appears to contradict the PO's expert. For example, PO's expert admits that patent

drawings may not be relied upon to show particular sizes/dimensions when the patent specification is silent on the issue. Ex. 1024, at 90-91. Strength is silent on whether visible holes exist in the mesh fabric; therefore any conclusion or opinion of whether holes exist in the mesh fabric of Strength that is based on a visual inspection of Fig. 1 is improper. In addition, in my opinion, as neither the POR nor the expert report provide any extrinsic evidence or analysis showing that the mesh fabric of Strength has no visible holes, such an assertion is baseless and should not be given any consideration. That is, PO's expert report is conclusory.

- 52) As a PHOSITA, when considering whether holes would be visible, several pieces of information must be taken into consideration. For example, the smallest size that a human eye can perceive cannot simply be expressed by a smallest measured size, because objects with a fixed size are perceived as smaller when viewed from a greater distance (this phenomenon is known as perspective). Consequently, visual acuity is measured as a function of viewing distance, and in degrees of visual view. Ex. 1018, at 7-8; Ex. 1027. Measured in degrees, the visual acuity of the average, normally sighted person is 1 minute of arc (1 MAR) (1/60 degree). Using the basic structure of the eye and trigonometry, one can calculate the smallest visible size X according to a formula: $X/2 = d \times \tan(\Theta/2)$, wherein d is the viewing distance and Θ is the visual acuity expressed in radians (convert to degrees: $\Theta \pi/180$ degrees). Assuming an adult focus distance of 100 mm and an

acuity of 1 MAR, the smallest visible size is 29 microns (0.001 inches). Ex. 1027. The POR and the expert report of PO simply ignore these important considerations. That is, neither the POR nor the expert report provide any analysis or extrinsic evidence that shows the mesh fabric of Strength has holes that are less than 0.001 inches. Rather, the expert report asserts, without support, that the hole density of Strength is 85-90 holes/inch. Ex. 2031, ¶¶77-78. For the sake of argument, selecting the highest density of this range (90 holes/inch), the hole size of Strength's mesh is 0.011 inches, which is approximately 11X larger than the size of the smallest visible hole size of 0.001 inches. Ex. 1018; Ex. 1027. For at least the above reasons, POR's argument that Strength provides no visible holes and is consequently not a mesh is incorrect, and should be entitled to no weight.

- 53) PO also states that the mesh fabric of Strength is not a mesh because it prevents passage of water or air therethrough; specifically because a 3 mil thick extrusion coating covers the holes on the second side of the mesh and creates a solid barrier. Paper 17, at 19, Ex. 2031, ¶75. This statement is provided with no basis or support, and thus, in my view, is conclusory. That is, neither the POR nor the expert report provide any analysis or cite to extrinsic evidence to support this blanket assertion.
- 54) For several reasons, this statement appears wrong. For example, the expert's deposition indicates Strength's disclosure of a 3 mil black coating applied to the

second side of the mesh fabric was itself the sole evidence relied upon for her opinion that all holes of the mesh are covered. Ex. 1023, at 121-126, 140. Such assertion, however, is conclusory, as it contains no calculations or other evidence to verify or confirm such a conclusion. Further, the expert agreed in the deposition that the molecular weight of Strength's coating (i.e., a polymer) is relevant in determining coverage of the film coating over the mesh fabric holes, yet her report fails to consider this film property in her opinion. Ex. 1023, at 140-141; Ex. 2031, ¶75. This defect is significant, as the molecular weight of the polymer coating can vary over a range, as the example of the coating provided in Strength is ethylene methyl acrylate, which is a co-polymer, and coverage needs to be evaluated over the range of molecular weight, and the expert opinion fails to consider this feature.

- 55) In evaluating coverage of an extruded film over a fabric, when the polymer molecular weight is low, holes form in the film. Exs. 1012, 1013. More particularly, as the film is extrusion-cast onto the moving fabric the film is stretched, and when the polymer molecular weight is below a threshold value for film mechanical strength, the film will not be stable and holes will form owing to the stress developed in the film. *Id.* Thus, if a film is being formed on a mesh fabric, under some circumstances when the molecular weight is below some threshold value (conditions about which the Strength reference is silent) the film will not cover the holes in the fabric. *Id.* Thus, a PHOSITA, upon evaluating

Strength, knows that a range of molecular weight exists for the co-polymer film, and that for low polymer molecular weights, Ex.1012, equation 2-59, holes will exist in the resultant film. As Strength is silent regarding these parameter values, it is reasonable for a PHOSITA to conclude that at least in some instances, the mesh fabric having the black coating thereon will have holes therein. Thus, Strength discloses a mesh. The POR and accompanying expert report ignore these considerations, and thus such opinion should be given little to no weight.

56) Lastly, Strength states that the 3 mil coating is simply one example, and Strength states the coating thickness is “about 3 mil.” Ex. 1003,3:4. PO’s expert report provides no evaluation of what “about” means in the art of extruded coatings. That is, no analysis is provided regarding whether a PHOSITA would conclude “about” to mean any coating between 1-5 mil in thickness, or whether “about” means a tighter range of 2.99-3.01 mil in thickness, etc. Simply put, the expert report is devoid of any substantive analysis upon which a PHOSITA could make any reasonable conclusion that Strength is not a mesh. Thus, the PO’s expert report is not based on evidence and should be accorded no weight, as its opinion is fatally deficient.

57) In addition, the above analysis of whether a polymer coating on the second side of Strength has holes presumes that the claim language requires such a property. In

my opinion, upon reading the plain, ordinary meaning of the claim language at issue, it does not. The claim language at issue is:

[1C] one or more panels of mesh material of interwoven fabric configured to be attached between the at least two spaced apart frame members that are along the side of the camouflage structure, said one or more panels comprising:

[1D] a first side with a camouflage pattern; and

[1E] a second side with a dark color coating, said second side opposite to the first side....

The claim language does not require that the one or more panels be a mesh.

Instead, the claim merely requires the panel be comprised of three items: (1) mesh material of interwoven fabric, (2) having a camouflage pattern on first side, and (3) having a dark color coating on the second side. Thus, even if the 3 mil coating discussed in Strength would in all circumstances fill all holes of the mesh (which no evidence exists that this is true), Strength discloses the claim elements [1C]-[1E]. The reason is that the claim language does not require the resultant panel to be a mesh panel. While preferred embodiments of the '535 Patent may disclose a mesh panel, no disclosure in the '535 Patent requires such property.

58) In addition, PO asserts that the mesh fabric of Strength is not a mesh because it does not exhibit sufficient airflow, based on the context of the '535 Patent specification. Paper 17, at 20-21. This is incorrect because in reading the claim language, the claims do not limit the mesh material of element [1C] and [19C] to a

specific range of airflows. Therefore it appears that the PO is attempting to add limitations improperly into the claims.

59) That the claim language has no airflow limitations does not appear to be an accident, but rather appears to be intentional. Another patent in the same patent family as the '535 patent (i.e., the grandfather application, U.S. Patent No. 10,765,108) includes a limitation that the mesh material have “an aperture density that corresponds to an airflow between 30% and 40%.” Ex. 1026, claim 1. Clearly, when the PO wanted an airflow limitation in the claims, it did so. The absence of any such limitation in the '535 Patent indicates that the PO did not intend for this claim language to be construed narrowly. Therefore PO attempts to restrict the scope of what constitutes a mesh material based on airflow discussion in the specification that is not required by the claim language, and this is improper. Therefore in my opinion no such airflow requirement on the mesh material claim limitation should exist.

Even if PO could import limitations into the claims (which is incorrect), PO's arguments regarding airflow still do not succeed. PO's expert admits that the mesh fabric of Strength exhibits an openness of 50% (Ex. 2031, ¶77). In my opinion, a mesh fabric having an openness of 50% indicates that 50% of the surface area of the mesh fabric is open. To a PHOSITA, this property makes Strength's fabric a mesh. PO argues that despite an openness of 50%, the Strength mesh fabric

exhibits a “very high hole per inch ratio,” which is not a mesh. Paper 17, at 20; Ex. 2031, ¶78. PO argues that with two mesh fabrics having an equal cover factor (e.g., corresponding to openness), a mesh with a very high hole density does not constitute a mesh as claimed. *Id.* PO’s expert asserts that Strength exhibits a hole density of 85-90 holes/inch, while a porthole mesh (one example of mesh in the ’535 Patent) typically exhibits a hole density of 5-10 holes/inch. Ex. 2031, ¶78. However, the expert report cites to no extrinsic evidence to support the claim of the differing hole densities, or to the assertion that a hole density threshold exists, above which an otherwise open fabric is not a mesh. Further, the expert report provides no calculation or analysis to support its assertions. Thus, such statements are conclusory, and are entitled to no weight. Strength discloses a mesh fabric having an openness of 50% that a PHOSITA would readily appreciate is a mesh.

IV. RUGGED CROSS’S EVIDENCE OF SECONDARY CONSIDERATIONS DOES NOT ESTABLISH NON-OBVIOUSNESS

- 60) Rugged Cross’s attempts to argue the claims of the ’535 Patent are non-obvious based on secondary considerations of non-obviousness. In my view such arguments fail, and should be given little to no weight. And even if some weight is given to the submitted evidence, it does not exceed the strong case of obviousness on the merits set forth in the Petition and Petitioner’s Reply to the Patent Owner Response.

A. Rugged Cross Fails To Establish A Nexus

- 61) I have been informed that in order to attach substantial weight to secondary considerations in an obviousness analysis, the evidence must have a nexus or connection to the claims. That is, there must be a legally and factually sufficient connection between the evidence submitted by the PO and the patented invention. Further, this nexus or connection can be presumed only when the product embodying the claims is coextensive or commensurate with the claimed invention. Upon reviewing the evidence provided by PO, this nexus or connection requirement is not satisfied for any of the secondary considerations.
- 62) Rugged Cross ties its secondary consideration evidence to the one-way viewing feature of the mesh. But there is no nexus. The only features of the mesh in the claims of the '535 patent are that the mesh has a camouflage pattern on the first side, and a dark color on the second, opposite side. The claim elements directed to the mesh (i.e., [1C]-[1E] and [19C]-[19E]) are all known prior art: (1) using mesh in a hunting blind is known (Ex. 1002, Fig. 4; Ex. 1004, 5:9-13; Ex. 1014, Fig. A), (2) printing a camouflage pattern on an outside of a mesh fabric in a hunting blind is known (Ex. 1003, Fig. 1, 1:59-62; Ex. 1004, 5:9-13; Ex. 1014, Fig. A), (3) employing a black lining on the inside of a mesh within a hunting blind is known (Ex. 1003, 2:26-29, 34-37, Ex. 1014, Fig. C, p. 4; Exs. 2032-E and 2032-F). This mesh was disclosed in publications (i.e., Exs. 2032-E and 2032-F) immediately

after the 2016 NWTF Convention trade show, more than one year prior to the priority date of February 28, 2017. Exs. 2032-E and 2032-F. These disclosures are prior art, and thus reliance on the one-way viewing feature of the mesh is reliance on prior art, and thus there is no nexus as required.

- 63) Further, the one-way viewing feature of the mesh is a function of characteristics of the mesh that are not found in the claims of the '535 patent. Seaton, Cameron, and others admitted that the one-way viewing feature depends fundamentally on the hole-size of the mesh that is selected. Ex.1019, at 57-58; Ex.1023, at 68-71. However, the '535 patent claims a generic mesh and does not recite a specific type of mesh or hole size of the mesh. The claims are broader, and capture mesh that may provide one-way viewing but also mesh that would not. For this reason alone, the claims are not commensurate in scope with the submitted evidence of secondary considerations. In fact, Rugged Cross has other related patents that contain claim limitations reciting the characteristics of the mesh that give rise to one-way viewing. Ex.1026, claim 1. Thus, in my opinion, none of the secondary consideration evidence that focuses on the benefit of one-way viewing should be afforded any weight.

B. No Evidence of Unexpected Results

- 64) Rugged Cross argues that discovery of a particular one-way mesh with a one-way see-through feature was unexpected to Chris Seaton in 2016. POR at 37-38;

Seaton Decl. ¶¶ 13, 15; Cameron Decl. ¶ 122. But I have been informed that this evidence is only relevant if the results are unexpected to a PHOSITA. At the time of Chris Seaton's unexpected discovery in 2016, he was not a person of skill in the art, as he himself admits. Ex.1019, at 11-14. He did not have either the educational or experience to qualify as a PHOSITA at that time, and admits he was unaware of any commercial hunting blind offerings at the time. Thus, Mr. Seaton's surprise is not relevant evidence of non-obviousness.

- 65) Rugged Cross's expert, Dr. Cameron, did not conduct any analysis of unexpected results, but merely provided an opinion that Chris Seaton's subjective feeling was reasonable. Ex. 2031, ¶ 122. But Dr. Cameron did not provide analysis in support of her statement, thus making it conclusory and consequently it should be given no weight. In any event, Dr. Cameron wrongly assumed that Chris Seaton was a person of ordinary skill in the art. And during cross-examination, she admitted that she never analyzed whether Chris Seaton qualified as a person of ordinary skill in the art in 2016. Ex.1024, at 169-171.
- 66) I have been informed by patent counsel that the starting point for considering evidence of "unexpected results" must be the closest prior art. Dr. Cameron admits she did not consider the closest prior art in connection with "unexpected results." Ex. 1024, at 172-174. And of course, Chris Seaton was not aware of any prior art, let alone the closest, which highlights why reliance on his purely subjective

surprise is not evidence of non-obviousness. Therefore, in my opinion, such evidence should be given little to no weight.

- 67) In addition, there is no evidence of a nexus between what was “unexpected” and the claimed invention. The hunting blind that Chris Seaton built in 2016, the “Austin blind,” is not a pop-up blind and is not covered by the claims of the ’535 patent. Ex. 1019, at 35-37. Moreover, what was allegedly unexpected is the one-way see-through feature of the mesh, but that feature is a function of characteristics of the mesh that are not in the claims of the ’535 patent, such as mesh hole size.

C. No Evidence of Commercial Success

- 68) Rugged Cross relies on evidence of commercial success of the Primos SurroundView hunting blind to support its contention that its claims are not obvious. According to deposition testimony, Primos had long been selling its Double Bull blinds, and the SurroundView was apparently the first version that included one-way see through mesh. Ex.1020, at 30-32. Rugged Cross does not offer any evidence of unit sales, prices, profit, revenues, market share, or other financial information indicative of commercial success. Rather, it simply relies on the claim that Primos increased sales of its hunting blinds and that the increase was due to the SurroundView blinds. Paper 17, at 52; Ex. 2033, ¶28.
- 69) This commercial success evidence fails because these statements are unsubstantiated and conclusory statements. They lack any context—sales

volumes, pricing, profit, market share, etc.—for actually assessing the supposed commercial success.

- 70) In addition, Rugged Cross relies on an alleged presumption of nexus, but there is evidence that the “increased sales” are due to Primos’s marketing strategy, not to the merits of the claimed invention. More particularly, Jason Harris of Primos admitted that 100% of Primos’s marketing spend at that time went to the new SurroundView blind that employed the one-way mesh. Ex.1020, at 69. Thus, in my opinion, it makes sense to conclude that the SurroundView blind drove new sales either completely or at least substantially in view of this advertising blitz. Rugged Cross did not attempt to rebut this; instead, Rugged Cross’s declarations omit this critical fact.

D. No Evidence of Copying

- 71) I have been informed that not every competing product that arguably falls within the scope of a patent is evidence of copying. Instead, copying requires the replication of a specific product, and such replication may be demonstrated either through internal documents, direct evidence such as disassembling a patented prototype, photographing its features, and using the photograph as a blueprint to build a virtually identical replica. Upon my review of the filing materials and accompanying exhibits, no evidence of replication of a specific product was submitted by the PO. Rather, PO relies entirely on allegations of infringement of

the '535 Patent. Paper 17, at 52-55. I have been informed that this allegation of infringement alone is insufficient evidence.

- 72) Further, while PO alleged infringement, PO did not submit evidence that compared alleged infringing products to the claims of the '535 Patent to allow me or anyone else to verify such allegation.

E. No Evidence Of Licensing

- 73) PO asserts that multiple licenses that include the '535 Patent have been executed with customers or competitors, and that this evidence weighs in favor of non-obviousness. Paper 17, at 56-57. But in my opinion the licenses should be given no weight under the present facts as PO has not disclosed the terms of the licenses. In particular, the licenses have not been entered into the record of this matter, and the declarations discussing these licenses omit even the most basic terms upon which they could be fairly evaluated. In my opinion, under such circumstances, the existence of licenses should be given little or no weight.
- 74) As stated above, the licenses at issue have not been made of record. Further, from what has been discovered via depositions, the terms of the licenses show the licensing is not evidence of non-obviousness. For example: (1) the licenses cover more than one patent, but have no apportionment therebetween, Ex. 1024, at 156-157, (2) licenses were taken before the '535 Patent even issued, Ex. 1022, at 21, 46, and (3) the only reason for the licenses was for a feature of the mesh not found

in the '535 Patent (i.e., mesh having an airflow of between 30-40%. Ex. 1026, claim 1.

- 75) In addition to the reasons highlighted above, at least one license, Scholes, admitted during his deposition that his company never used the license, never sold a product covered by the license, and has never made a royalty payment under the license to Rugged Cross. Ex.1021, at 33-34. Despite this, Rugged Cross and its expert Dr. Cameron relied on that license as evidence of non-obviousness, but omitted these critical facts that imply the license is of little to no value. In my opinion, reliance on a paper-license having no commercial value undermines the credibility of each of the witnesses purporting to rely on it, including most significantly Dr. Cameron.

F. No Evidence of Long-Felt Need

- 76) PO asserts that its submitted evidence shows the patent allegedly satisfies a long-felt need. In the POR, PO asserts that there was a long-felt need to minimize/eliminate blind spots in a ground blind while concurrently concealing an occupant within the blind. Paper 17, at 57. Yet, the one-way viewing mesh material, as set forth in the independent claims of the '535 Patent, do not solve the problem of blind spots. At best, only dependent claim 14 that recites the mesh providing 360 degree viewing solves this need. Ex. 1001, claim 14. The POR points only to conclusory statements within the declarations, and not to any substantive, extrinsic evidence of an articulated, identified problem in any prior art

or other type evidence prior to the date of invention of the '535 Patent.

Consequently, in my opinion, PO has failed to demonstrate that a long-felt need even existed.

- 77) In addition, the scope of the relevant claim language (i.e., a mesh fabric having camouflage on one side and a dark color on the other side) is broad enough to cover devices that either do or do not solve the problem at issue. For example, the Ameristep Penthouse™ blind discloses a hunting blind having a mesh window that has a camouflage pattern on the external side and a black color lining on the internal side to reduce shadows and silhouettes inside the blind. Ex. 1014. The claim language of claims 1 and 19 do not even address the long-felt need of blind spots, and to the extent the mesh claim language addresses the need of concealing a blind occupant, such language is so broad that it covers devices like the Ameristep blind. Ex. 1014. In Ransom's deposition, he stated that a mesh with camouflage on the outside and a black lining on the inside was known to improve concealments of a blind occupant back as early as 2005. Ex.1022, at 62. Thus, it is my opinion that some additional feature of the mesh material, not set forth in the claims, was the dispositive factor in meeting the long-felt need at issue. Consequently, the evidence submitted by PO with respect to this factor fails.

G. No Evidence of Industry Praise

- 78) I have been informed by patent counsel that the use of industry praise as a secondary consideration of non-obviousness requires a nexus between the praise and the inventive aspects of the claims. PO's submitted evidence fails to satisfy this requirement. During prosecution of the '535 Patent, the mesh claim feature was not considered a point of novelty by the USPTO. Ex. 1006, at 64, 72-72 (asserting Nagata discloses the mesh feature). In response, PO amended the independent claims to include allowable subject matter directed to structural features of the blind. *Id.*, at 38-47 (e.g., amending claims to include spaced apart frame members along a side and along a roof of the blind).
- 79) In submitting evidence of industry praise, all of PO's evidence is praise for the mesh material, which was not considered an inventive aspect of the claim during prosecution. Therefore it is my opinion that PO's evidence should be given little to no weight by this Panel. Furthermore, as discussed, the one-way see through feature of the mesh is attributable to features of the mesh that are not in the claims, such as hole size.

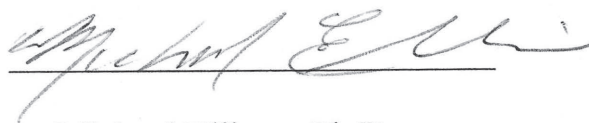
In addition, much of the praise was for the Austin Blind in 2016, but the Austin blind is not a pop-up blind and is not covered by any claim of the '535 patent, making such praise legally irrelevant.

CONCLUDING STATEMENT

- 80) In conclusion, as set forth above, based on the combination of prior art reviewed above disclosing all the claim features, and my further analysis and opinion provided in response to PO's POR, claims 1-19 should be cancelled as being obvious by the reviewed prior art references.

81) Under penalty of perjury, all statements made herein of my own knowledge are true, and I believe that all statements made herein on information and belief to be true. I have been warned and I am aware that willful false statements are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code. In signing this Declaration, I understand that the Declaration will be filed as evidence in a contested case before the Patent Trial and Appeal Board of 12 the United States Patent and Trademark Office. I acknowledge that I may be subject to cross-examination in the case and that cross-examination will take place in the United States. If cross examination is required of me, I undertake to appear within the United States during the time allotted for cross-examination, and within the limits of my ability so to do. I declare under penalty of perjury that the foregoing is true and correct.

Executed on December 13, 2024

A handwritten signature in dark ink, appearing to read "Michael Ellison", written over a horizontal line.

Michael Ellison, Ph.D.