

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.

TABLE OF CONTENTS

I.	INTRODUCTION	3
A.	Statement of Declarant	3
B.	Materials Considered.....	3
C.	Experience and Qualifications	4
II.	LEGAL PRINCIPLES USED IN MY ANALYSIS.....	6
A.	Person Having Ordinary Skill in the Art.....	6
B.	The Prior Art	7
C.	Claim Construction Standard	7
D.	Anticipation	8
E.	Obviousness.....	8
III.	BACKGROUND OF THE TECHNOLOGY.....	14
IV.	OVERVIEW OF THE '535 PATENT	22
V.	OVERVIEW OF PRIOR ART	25
A.	U.S. Patent No. 8,375,968 B2 (Whybrew)(Ex.1002)	25
B.	U.S. Patent No. 6,709,993 (Strength) (Ex.1003)	27
C.	U.S. Patent No. 7,137,399 (Ransom)(Ex.1004).....	31
D.	U.S. Patent No. 5,385,165 (Hazinski)(Ex.1005).....	33
VI.	SUMMARY OF ARGUMENT.....	34
VII.	SPECIFIC GROUNDS FOR UNPATENTABILITY	35
A.	Ground A: Obviousness of claims 1-5, 8-13 and 15-18 over Whybrew in view of Strength	35
1.	Independent Claim 1	35
2.	Dependent Claim 2	61
3.	Dependent Claim 3	62
4.	Dependent Claim 4	63
5.	Dependent Claim 5	64
6.	Dependent Claim 8	69

7.	Dependent Claim 9	70
8.	Dependent Claim 10	71
9.	Dependent Claim 11	71
10.	Dependent Claim 12	76
11.	Dependent Claim 13	77
12.	Dependent Claim 15	79
13.	Dependent Claim 16	81
14.	Dependent Claim 17	83
15.	Dependent Claim 18	85
B.	Ground B: Obviousness of claims 6-7 and 19 over Whybrew in view of Strength and Ransom	87
1.	Dependent Claim 6	87
2.	Dependent Claim 7	90
3.	Independent Claim 19	90
	Ground C: Obviousness of claim 14 over Whybrew in view of Strength and Hazinski	92
1.	Dependent Claim 14	92
	CONCLUDING STATEMENT	94
	CLAIM LISTING APPENDIX	96

I. INTRODUCTION

A. Statement of Declarant

- 1) I have been engaged by DBR FINANCE, INC. (DBR), an Ohio corporation to opine on the patentability of U.S. Patent No. US 11,399,535 B2 (the `535 Patent), entitled CAMOUFLAGE MATERIAL FOR A HUNTING BLIND. My opinions are set forth herein. I submit this Declaration on behalf of DBR in connection with its request for *inter partes* review of the `535 Patent.

B. Materials Considered

- 2) The analysis that I provide in this Declaration is based on my education and experience as set forth below beginning in paragraph 14.
- 3) I have reviewed various publications from the prior art at the time of the alleged invention of the `535 Patent. These publications, along with other materials I have reviewed, include those listed below:
 - 4) U.S. Patent No. 11,399,535 (Seaton)(Ex. 1001).
 - 5) U.S. Patent No. 8,375,968 (Whybrew)(Ex. 1002).
 - 6) U.S. Patent No. 6,709,993 (Strength)(Ex. 1003).
 - 7) U.S. Patent No. 7,137,399 (Ransom)(Ex. 1004).
 - 8) U.S. Patent No. 5,385,165 (Huzinski)(Ex. 1005).
 - 9) File wrapper of U.S. Patent No. 11,399,535 (Ex.1006)

- 10) Dictionary of Fiber and Textile Technology, Hoechst Celanese Corporation, 1990 (Ex. 1008).
- 11) Textile Science, Kathryn L Hatch, West Publishing, 1993 (Ex. 1009).
- 12) Pitman, Donald, Many Uses of PVC Coated Polyester Yarns, J Coated Fabrics, vol 9, Oct 1979, p. 138 (Ex. 1010).
- 13) Maureen M Grasso, Effect of Textile Properties on the Bidirectional Solar-Optical Properties of Shading Fabrics, Textile Research Journal, 62(5), 247-257, May 1992 (Ex. 1011).

C. Experience and Qualifications

- 14) I joined the faculty of the School of Textiles at Clemson University in 1984. (The name of that unit is now the Department of Materials Science and Engineering.)

My initial teaching responsibilities included an overview course of textile fundamentals, which I taught for several semesters, and an undergraduate course in fiber science. I also taught graduate courses in fiber physics and fiber formation during my tenure at Clemson.
- 15) I am now Professor Emeritus in the Department of Materials Science and Engineering in the College of Engineering, Computing, and Applied Sciences at Clemson. I served as a professor at Clemson from 1984 through 2014, at which time I retired from active teaching and research. Since my retirement in 2014, I have been active in the Emeritus College serving on several committees.

- 16) Prior to joining the faculty at Clemson, I received two degrees in physics from the University of California, Davis campus (UCD): BS (1971) and MA (1973). I was awarded a PhD in polymer fiber physics by UCD in 1982. Prior to that, I received an AA degree in engineering from Sierra College (California) in 1967.
- 17) I was a Graduate Teaching Assistant in the Physics Department at UCD, 1971 – 1973. From 1982 – 1983 I was a Lecturer in the Division of Textiles and Clothing (UCD). Overlaying these appointments, from 1975 – 1984, I was a Staff Research Associate in the Division of Textiles and Clothing (UCD).
- 18) After obtaining my physics masters, I was a Lecturer, Physics and Mathematics Departments from 1973 – 1974 at California State University, Chico. During my time at UCD, I was a part time Instructor in the Physics Department at Diablo Valley College, Pleasant Hill, CA 1982 – 1983.
- 19) I have been an active member of The Fiber Society (<https://www.thefibersociety.org/>), an organization regarding research related to the science and engineering of fibers and fibrous materials, serving as the Society Secretary and attending and presenting at global conferences.
- 20) I am a member of the Materials Research Society, an organization of materials researchers worldwide that promotes communication for the advancement of interdisciplinary materials research and technology. I sponsored graduate student presentations at those meetings. I also am a member of the American Physical

Society and American Chemical Society. My presentations have predominantly related to fiber science or specialized fabrics.

II. LEGAL PRINCIPLES USED IN MY ANALYSIS

- 21) I understand that in writing this Declaration I am obliged to follow existing applicable law. I have therefore been asked to apply the following legal principles to my analysis, and I have done so.

A. Person Having Ordinary Skill in the Art

- 22) I understand that my assessment of the claims of prior art patents must be undertaken from the perspective of what would have been known or understood by a person having ordinary skill in the art (PHOSITA) at the time of the patent filing, reading the prior art patents in light of the specifications and file history of those patents. For this Petition, I understand that a PHOSITA would have had a bachelor's degree in physics, mechanical engineering, textile engineering, or a similar discipline, or at least two years of design experience in the field of hunting blinds.
- 23) I am informed and understand that various factors can be considered in determining a person having ordinary skill in the art (PHOSITA). I am informed and understand that those factors include: (1) the educational level of the individual; (2) the type of problems encountered in the art, (3) prior art solutions to

those problems, (4) the rapidity with which innovations are made, (5) sophistication of the technology, and (6) education level of active workers in the field.

- 24) My analysis and opinions regarding the claims of the `535 Patent have been based on the perspective of a PHOSITA as defined above. As described above and as shown in my CV, I have extensive experience in the field of textiles and materials.

B. The Prior Art

- 25) I understand that applicable patent law provides categories of information that constitute prior art that may be used to anticipate patent claims or to render them obvious. I understand that for a reference to qualify as prior art to a particular patent claim under the relevant law, that reference must have been made, known, used, published, or patented, or must have been the subject of a patent application by another person, before the priority date of the patent in question, and in this matter, must satisfy one of the standards of pre-AIA 35 U.S.C. § 102.

C. Claim Construction Standard

- 26) In making this Declaration, I have been asked to review the terms in the `535 Patent claims to determine what a PHOSITA would have understood those terms to have meant at the time of the alleged invention. In addition, I have been informed that, in an *inter partes* review proceeding, the claim terms under consideration are to be construed using the same claim construction standard used

in a civil action under 35 U.S.C. § 282(b), which is articulated in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc), and its progeny. I further understand that under the *Phillips* standard, the claim terms are given their ordinary and customary meaning, as would be understood by a PHOSITA at the time of the invention, consistent with the specification and the prosecution history. My opinions regarding the meaning of claim terms of the `535 Patent are based on the construction of the claim terms using the *Phillips* standard in view of the specification and the prosecution history of the `535 Patent.

D. Anticipation

- 27) I understand that to be valid, a patent claim must be novel, and that a claim is invalid if it is anticipated by a single prior art reference. I further understand that a reference anticipates if it discloses each and every element of the claim and enables a PHOSITA to make and use the claimed invention without undue experimentation.

E. Obviousness

- 28) I also understand that even if a claim of a patent is not anticipated that claim is still invalid if the differences between the claimed subject matter and the prior art are such that the subject matter as a whole would have been obvious to a PHOSITA at the time the invention was made.

29) I understand further that the condition “at the time the invention was made” in an obviousness determination is imposed to rule out impermissible hindsight.

Accordingly, permissible reasoning takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include knowledge gleaned from the applicant’s disclosure in the patent under analysis. I also understand that an opining expert is required to analyze prior art from the perspective of a PHOSITA and may not simply provide his or her own personal conclusions.

30) I also understand that an obviousness determination includes several factual inquiries, including: (1) determining the scope and content of the prior art; (2) ascertaining the differences between the claimed invention and the prior art; (3) resolving the level of ordinary skill in the pertinent art; and (4) taking into consideration any secondary indicia (objective evidence) of non-obviousness.

31) I also understand that such objective evidence of non-obviousness may include: (1) a long felt but unsolved need that was satisfied by the claimed invention; (2) commercial success attributable to the claimed invention; (3) unexpected results achieved by the claimed invention; (4) praise by experts of the claimed invention with factual support; (5) taking of licenses under the patent by others for reasons related to the alleged non-obviousness of the claimed invention; (6) the failure of others; (7) the teaching away of others; (8) skepticism by experts; and (9) evidence

that competitors in the marketplace have copied the invention instead of using the prior art. I also understand that in order to establish non-obviousness there must be a demonstrated relationship, or nexus, between any such secondary indicia and the claimed invention; i.e., there must be objective evidence of non-obviousness attributable to the claimed invention.

- 32) I further understand that near simultaneous invention by two or more equally talented inventors working independently may or may not be an indication of obviousness when considered in light of all the circumstances.
- 33) I understand that a conclusion of obviousness can be based on a combination of multiple prior art references. I understand that rationales that may support a conclusion of obviousness include:
- (A) Combining prior art elements according to known methods to yield predictable results;
 - (B) Simply substituting one known element for another to obtain predictable results;
 - (C) Using known techniques to improve similar devices (methods, or products) in the same way;
 - (D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;

(E) Using an obvious-to-try solution, i.e., choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Applying known work in one field of endeavor to yield variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;

(G) Applying some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference disclosures to arrive at the claimed invention.

- 34) I further understand that an analysis of obviousness should recognize that market demand, rather than scientific literature, often drives design trends.
- 35) I also understand that if a technique has been used to improve one device, and if a PHOSITA would recognize the technique would improve similar devices in the same way, then using that technique would be obvious to a PHOSITA unless actual application of that technique is beyond his or her skill.
- 36) I also understand that practical and common-sense considerations should guide an analysis of obviousness, because familiar items may have obvious uses beyond their primary purposes. I further understand that applying common sense does not require a specific hint or suggestion in a particular reference. Rather, applying common sense requires a reasoned explanation that avoids conclusory generalizations and false deductions.

- 37) I also understand that, when addressing a problem, a PHOSITA will often be able to fit together the disclosures of multiple publications. In this regard, I understand that an analysis of obviousness may consider inferences and creative steps that a PHOSITA would normally employ.
- 38) I also understand that a particular combination of prior art may be proven obvious merely by showing that it was obvious for a PHOSITA to try that combination. For example, when there is a design need or a market pressure to solve a problem, and/or there exists a finite number of identified, predictable solutions with a reasonable expectation of success, a PHOSITA has good reason to pursue the known options within his or her technical grasp. I understand that if this leads to anticipated success, it is likely that the result is not of innovation but of ordinary skill and common sense.
- 39) I also understand that a combination of familiar elements according to known methods is presumed to be obvious when that combination does no more than yield predictable results. Work known in one field of endeavor may prompt variations of that work for use in either the same field or a different field, based on design incentives and other market forces. If a technique has been used to improve some device, and a PHOSITA can implement a predictable variation of that technique, then that variation is likely unpatentable.

- 40) I further understand that to be proper for use in an analysis of obviousness, a reference must teach art that is analogous to the claimed invention. I also understand that under a correct analysis, any need or problem known in the field of endeavor at the time of the invention and addressed by the claimed invention can provide a reason for combining the elements in the manner claimed.
- 41) I understand that a claim can be obvious in light of a single reference, without the need to combine references, if the elements of the claim that are not found explicitly or inherently in that single reference can be supplied by the common sense or technical knowledge of a PHOSITA. For example, combining two embodiments disclosed adjacent to each other in a prior art patent likely does not require a leap of inventiveness.
- 42) I also understand that a claimed invention may be obvious if it merely involves simple substitution of one known element for another to obtain predictable results.
- 43) I understand further that, in an analysis of obviousness, two items of prior art need not be like two puzzle pieces that must fit together perfectly. For example, a claimed invention may be found obvious if a PHOSITA would view rearrangement as an obvious matter of design choice.
- 44) I also understand that an analysis of obviousness requires a comparison between the properly construed claim language and the prior art on a limitation-by-limitation basis.

III. BACKGROUND OF THE TECHNOLOGY

- 45) Textiles, broadly defined, is one of the technologies at issue. In addition, coating, printing, and structural frameworks are relevant. I provide here an introduction to these technologies.

INTRODUCTION

- 46) The term “solar shade” often refers to a type of window covering that is designed to block a certain amount of light (and related heat) from passing through the shade into an interior space. The protection afforded by such shade fabrics depends on the materials used, the openness of the fabric (aka cover factor), and the color of the fabric. Ex. 1011, p. 256.
- 47) The “openness” (aka cover factor) of the fabric (*i.e.*, the spaces between the yarns) makes it possible to see through the shade while also blocking a certain amount of light and heat. Depending on the relative light levels on the two sides of the shade, these shades can function as a one-way viewing privacy screen. The openness is given as a percentage, with a lower percentage number indicating a greater opacity. Ex. 1008, p. 36.
- 48) More detail on the functionality of this type of fabric is described below after a discussion of the pertinent aspects of fabric design and production.

TEXTILES PRODUCTION AND STRUCTURES

- 49) This section provides a limited overview of the basic “building blocks” of fabric, including production of fibers, yarns, and fabrics.
- 50) FIBER: A fiber is a unit of matter, either natural or manufactured, that forms the basic element of fabrics. A fiber is normally characterized as having a length at least 100 times its diameter, which is generally quite small. The term fiber refers to units that can be manufactured into a yarn and then made into a fabric by various methods discussed below. Important fiber properties include elasticity, fineness (diameter), uniformity, durability, and luster (brightness).
- 51) The type of material that makes up the fiber determines the property range of the fiber. Although many other types of polymers are available, the synthetic polymer types most often encountered in shading fabrics are polyester, nylon, and polyolefin. It was recognized in 1979 and perhaps earlier, that polyester, particularly when vinyl coated, is ideal in many respects for use in shading applications. Ex.1010. The vinyl coating makes the fabric quite durable, and polyester yarns give the fabrics excellent tensile and tear strength.
- 52) Regardless of their material composition, synthetic fibers are manufactured using extrusion by forcing the material in liquid form through a spinneret (a plate with

many tiny holes), which forms filaments, and then solidifying, stretching, and winding the filaments onto a tubular package. A spin finish solution is applied prior to stretching in order to reduce static. Ex.1009.

53) YARN: A yarn consists of a continuous strand of staple fibers or filaments (the word fiber refers to pieces of a filament and derives from the natural fibers such as cotton) in a form suitable for constructing a textile fabric. Yarns can be spun yarns, from staple fibers, or filament yarns. The diameter of the yarn is referred to as fineness. Fineness can be measured indirectly for a yarn of known polymer density by measuring the mass per unit length, sometimes called Denier (g/9km) or Tex (g/km). With the known density, the cross-sectional area of the yarn can be determined. Yarns can be produced from a single type of fiber or a blend of fibers. Slashing is the application of a coating to the yarn, called the sizing, which is most often a starch or synthetic resin, and is done in order for the yarn to withstand the rigors of fabric production. Ex.1009.

54) FABRIC: A fabric is a planar textile structure produced by interlacing yarns. The details relating to fabric construction, which include, among other things, the style, width, type of knit or weave, fabric count (yarns per inch in warp and fill), and overall weight (oz/sq yard) of the fabric, are as follows, based on the overarching type of fabric, (*e.g.*, woven or knitted). Since in the present case only woven fabrics are cited, we limit our discussion to plain weaves. Ex.1009.

55) **WOVEN:** A woven fabric consists of a system or pattern of intersecting or interlacing warp and fill yams. The yarns which run in the lengthwise direction of a woven fabric are wound individually on a large tube, the beam, and are referred to as the warp yarns (see discussion below on the elements of weaving machines). Filling yarns are inserted crosswise to the fabric. [Fig 1] There are several insertion methods in use. Ex.1009.

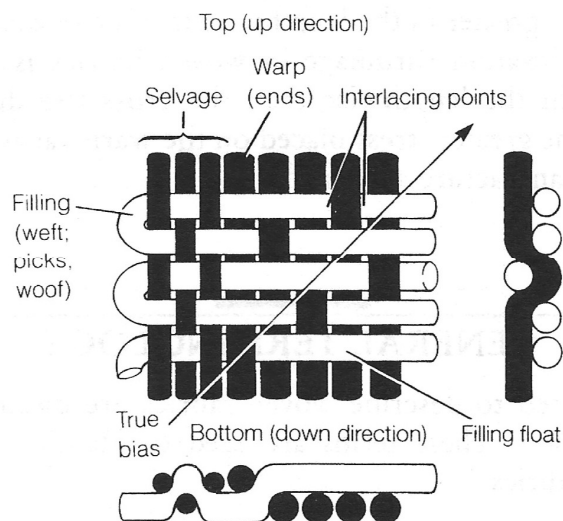


FIGURE 1. Elements of generalized woven fabric (Ex.1009, p. 318)

56) **PLAIN WEAVE:** For plain weaves, each filling yam passes successively over and under each warp yarn, alternating each row. [Fig 2]

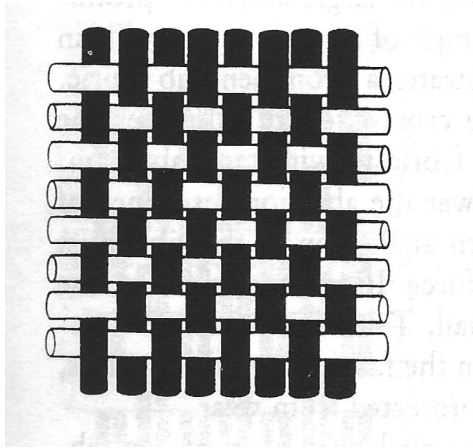


FIGURE 2. Plain weave (Ex.1009, p. 321)

WEAVING MACHINE ELEMENTS

- 57) Referring to the drawing in Figure 3, a basic loom can be seen to be made up of a warp beam containing the warp yarns, then harnesses containing the heddles (a heddle is a wire-like structure with a hole in the middle through which a warp yarn passes). The harnesses are followed by the reed (a comb-like structure that the warp yarns pass through), then an insertion method such as a shuttle containing a bobbin of the filling yarn, and finally the cloth beam or roll. Ex.1009.
- 58) To set up the loom for weaving, the warp yarns are drawn one-by-one toward the front of the loom, passing through the heddles, then through the reed, then over the loom frame and attached to the cloth roll. Figure 3 shows a loom with two harnesses, the number needed to make plain weave cloth. Ex.1009.
- 59) The harnesses are connected to a shedding mechanism that causes to warp yarns to be locally separated vertically, forming the shed, so a fill yarn can be inserted. The

function of the reed is to keep the warp yarns separated from one another by a prescribed amount. After each filling insertion or pick, the reed moves toward the front, referred to as beating up, pressing the new fill yarn against the previous one, forming the cloth. Then the shed is re-formed by the heddles changing vertical position, and another fill is inserted and the process repeats. The cloth is wound onto the cloth roll. Tension in the cloth is maintained by the cloth roll being driven, winding up the cloth while the warp beam has brakes that resist the pulling by the cloth roll. [Fig. 3]

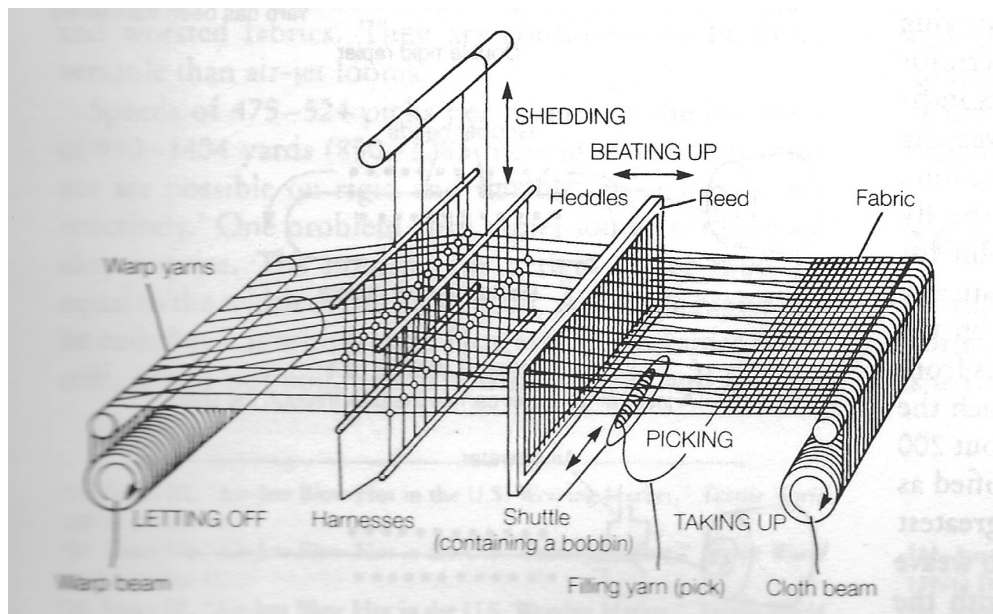


FIGURE 3. Weaving loom elements (Ex.1009, p. 337)

TEXTILE PARAMETERS AND SHADE FABRIC

60) OPENNESS AND OPACITY

61) Fabric, yarn, and fiber properties have a combined effect on the transmission and reflection of light by the fabric at different angles of light incidence. That article

explained that the openness (openness is the conceptual opposite of fabric cover, the textile term generally used), which is dependent upon how close the yarns are to each other, has a marked effect on transmission, especially with perpendicular incidence. In addition, the yarn structure and the fiber translucence also had a strong influence on transmission. Reflection has an interesting dependence on yarn and fiber type especially, as well as fabric structure. Ex.1011.

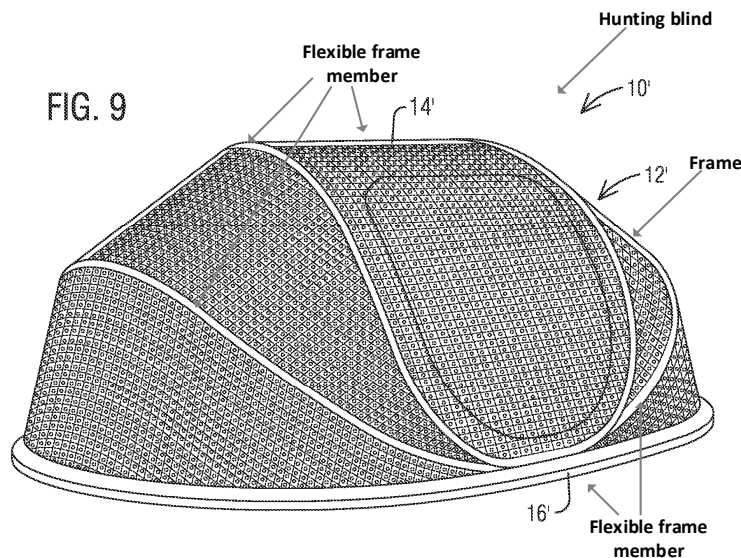
- 62) As reflected in the discussion of loom elements, the reed can establish the amount of spacing between the warp yarns, as the pressure with which the reed beats up the cloth can determine how tight the filling yarns are to one another. Other parameters that affect openness include the fineness of the yarn and the type of weave. Ex.1009.
- 63) The color of the fabric has a marked impact on the light shading and the thermal transmittance of a solar shade fabric. Darker fabrics will absorb some of the light as heat from the sunlight and reemit it, but they provide for good viewing through the fabric to the outside and reduce glare. Lighter-colored fabrics provide better heat resistance and interior illumination. Ex.1011.
- 64) **THICKNESS AND WEIGHT:** Thickness of the fabric affects both the weight and the opaqueness. Fabric thickness has components of fiber type and size, yarn size, and fabric construction. Ex.1011.

FABRIC TREATMENTS

- 65) **Coating:** A fabric may be coated with a polymer film in order to improve functional aspects. Polymers commonly in use include polyvinyl chloride (PVC) and polyacrylonitrile (PAN). Ex.1011. Other polymers are available. Application methods include extrusion coating, film coating, and dip coating in which the fabric is immersed in a vat. Extrusion coating uses equipment similar to that used for fiber production, as just discussed, except that the spinneret is replaced by a slit die (film extrusion). The fabric is passed under the die. Slit extrusion is also used to make the films used in film coating. Ex.1011.
- 66) **PRINTING:** Printing refers to the creation of patterns on the surface of the fabric using ink-like liquids. There are many methods employed in commercial printing. Screen printing, both flat- and roller-screen are common. The screen has holes in it corresponding to the desired pattern to be imparted to the fabric. The printing medium (the ink) is forced through the holes and onto the fabric. Engraved rollers are also used in textile printing. Digital inkjet printing is one of the most modern ways of printing textile fabrics. In this method, a printing pattern can be directly printed onto the fabric with an inkjet printer controlled by a computer, without any need for making printing screens or engraved rollers. Ex.1008, p.122.

IV. OVERVIEW OF THE '535 PATENT

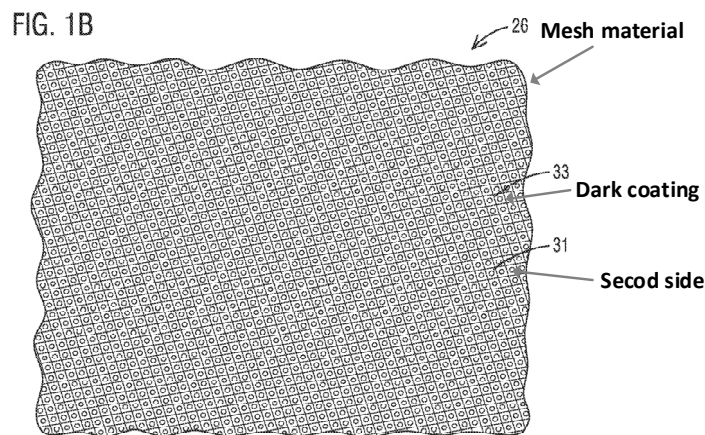
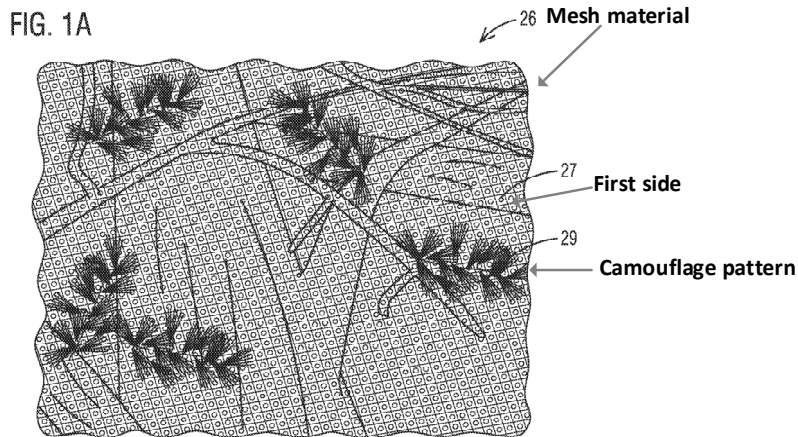
67) The '535 patent presents a camouflage structure (hunting blind) 10' comprising a frame 12' that includes several flexible frame members 14', 16' and a textile fabric covering as shown below (Ex. 1001; Fig. 9). According to the independent claims, at least two of the flexible frame members 14' are spaced apart from one another along a side of the structure, and at least two of the flexible frame members 16' are spaced apart from one another along a roof of the structure (Ex. 1001; claims 1, 19); however, it is unclear from Figure 9 how the frame members 16' define a roof of the structure, and no corresponding description exists to ascertain what is intended by such language. It would appear from the figure that frame members 16' define a base for the structure.



68) The fabrics of the camouflage structure 10', as shown below in Figs. 1A and 1B, comprise panels of mesh material 26 of woven fabric that attach between the

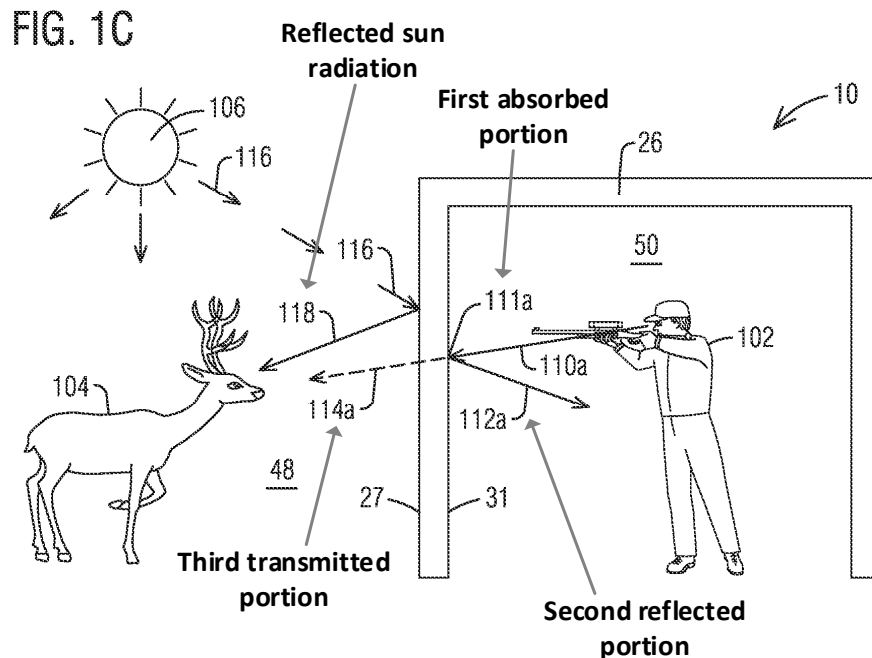
flexible frame members along the side of the structure. Ex.1001, 3:22-23, 61-65.

The panel of mesh material 26 has a first side 27 that has a camouflage pattern on it 29, Ex.1001, Fig.1A; 3:23-25, and a second side 31, opposite the first side 27, that has a dark colored coating 33. Ex.1001; Fig.1B; 3:31-33.



- 69) The panel of mesh material 26 provides a “one-way” viewing feature, in that during normal viewing conditions (e.g., daylight) the exterior of the hunting blind is visible from the interior of the hunting blind, while the interior of the hunting blind is not visible from the exterior of the hunting blind. Ex.1001, 3:65-4:1. As shown in Fig. 1C, a hunter 102 is positioned in the interior 50 of the hunting blind

10 and game 104 is positioned in the exterior 48 of the hunting blind. Light radiation 110a interior to the blind, as from the hunter 102, is incident on the second side 31 of the mesh material 26. A first portion 111a of the radiation 110a is absorbed by the dark coating 33 on the second side 31. Ex.1001; 4:4-14. A second portion 112a of the radiation 110a, is reflected off the second side 31 back into the interior 50 of the hunting blind, and a third portion 114a of the light radiation 110a is transmitted through the mesh material 26. Ex.1001; 4:20-24.



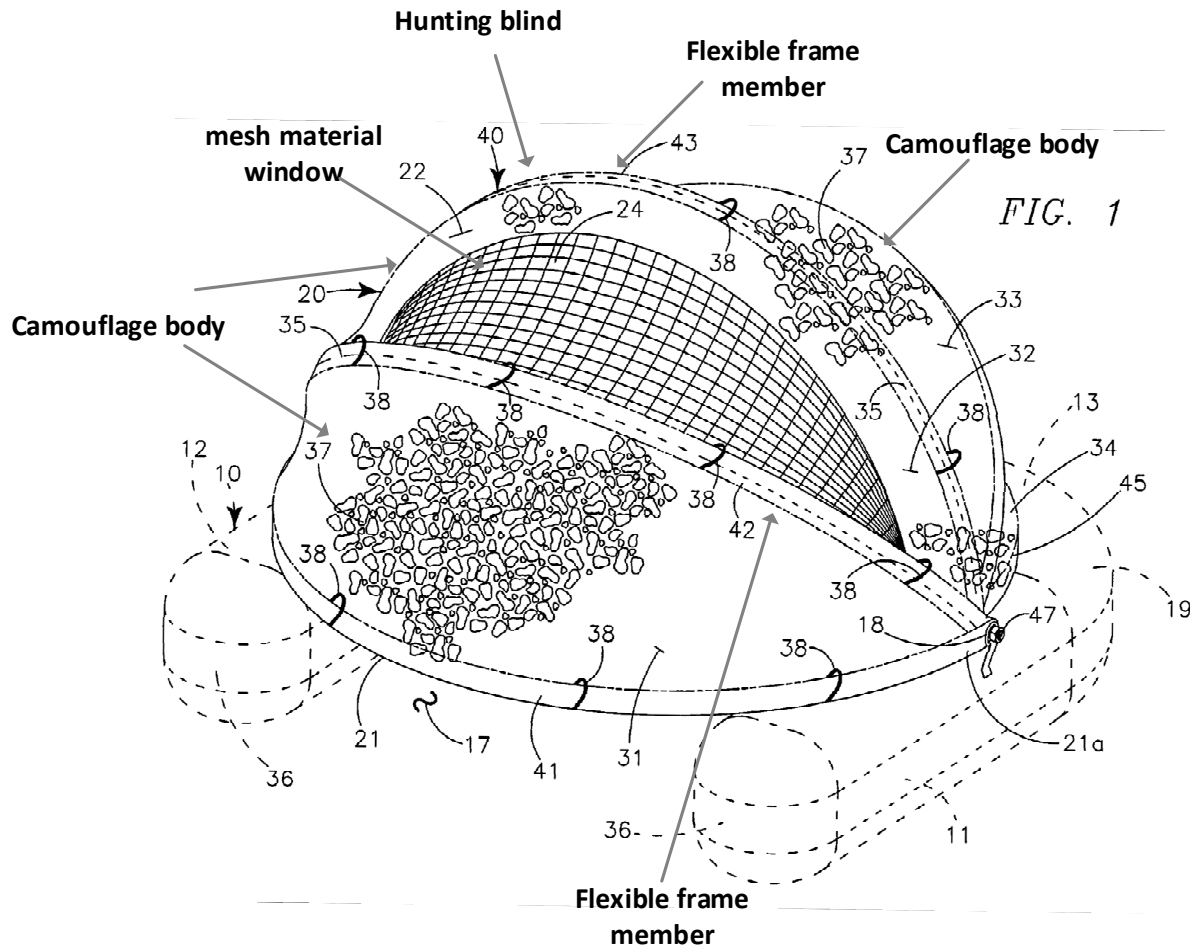
70) Still referring to Fig. 1C, radiation 116 from the sun 106 is incident on the first side 27 of the mesh material 26, and a portion 118 is reflected off the camouflage pattern 29 toward the game 104. When the intensity of the reflected portion 118 of this incident light is much greater than the intensity of the transmitted portion 114a from the interior 50 (i.e., reflected portion 118 greater than transmitted portion

114a), the interior 50 of the hunting blind 10 is darker than the exterior, and consequently the interior 50 of the hunting blind is not visible from the exterior 48. Ex.1001; 4:28-40. What is missing from the description in the patent for Figure 1C is mention of any transmitted sunlight to the interior of the blind.

V. OVERVIEW OF PRIOR ART

A. U.S. Patent No. 8,375,968 B2 (Whybrew)(Ex.1002)

71) Whybrew is a United States patent and discloses a manually retractable and portable hunting blind that includes a flexible camouflaged body 20, 37 having a mesh fabric window 24 that is supported on a frame 40 composed of elongate flexible stays or members 41, 42, 43, 44, 45. Ex.1002, Fig. 1; 4:40-62; Abstract: “A manually retractable sportsman's blind releasably attached to a support provides a flexible camouflaged body having a mesh fabric window and supported on a frame comprised of plural elongate flexibly resilient stays pivotally attached to one another at proximate end portions to support the flexible camouflaged body and mesh fabric window in a hemispherical shape.”



- 72) The body 20 of the hunting blind defined by flexible members 41, 42, 43, 44, 45 which define sections 31, 32, 33, 34 of fabric material are fastened together so that the sections are supported by the frame 40 in a hemispherical shape having a first outer surface 22 and a second interior surface 23. Ex.1002; Fig. 1; 4:63-5:2.
- 73) The mesh fabric window 24 forms at least a portion of section 32 of the frame body 20 and is formed of a flexible mesh-like material having a weave that is less dense than the weave of the fabric material of other sections 31, 33, 34 of the frame body 20. Ex.1002; 5:3-12. The material of the mesh fabric window 24

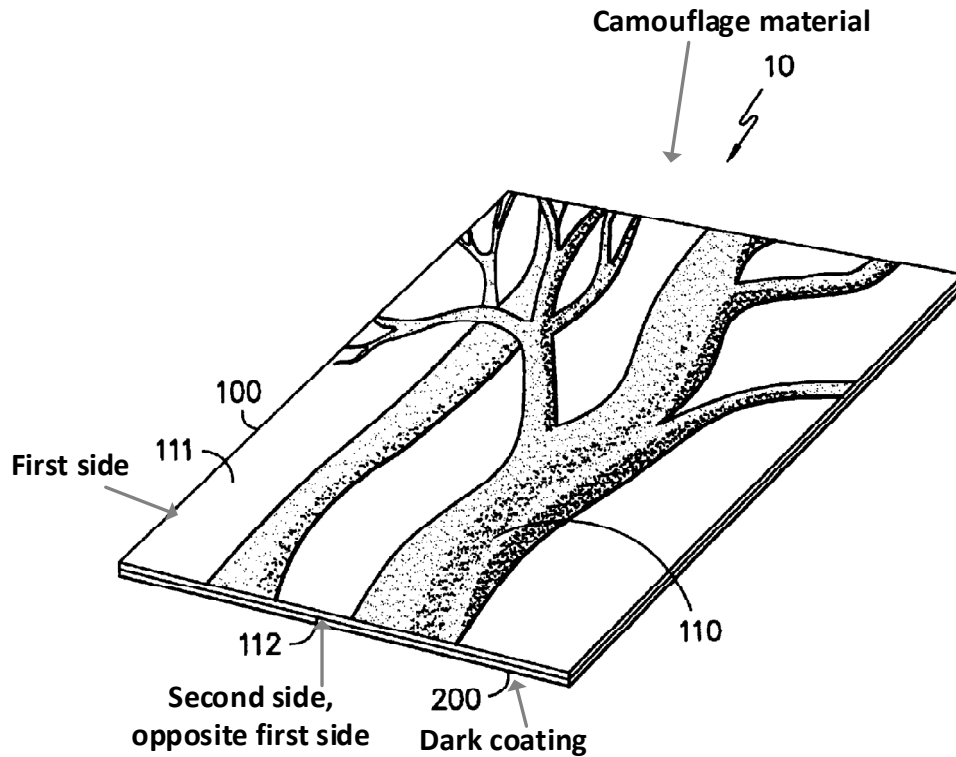
provides a “one-way” vision characteristic that allows a hunting blind occupant to see outwardly through the mesh fabric window, but observers, including animals, external to the hunting blind, cannot see into the hunting blind or discern human activity inside the hunting blind. Ex.1002; 5:12-16. This “one-way” vision characteristic of the mesh fabric window 24 results from, among other things, a light differential between the exterior and the interior of the blind. As other fabric sections 31, 33, 34 of the frame body are less translucent than the mesh window 24, the interior of the hunting blind is darker and less illuminated than the exterior of the hunting blind. Ex.1002; 5:16-22. This light differential facilitates vision of an occupant through the mesh fabric window 24 from the inside to the outside, and concurrently inhibits vision from the outside to the inside of the hunting blind through the mesh fabric window 24. Ex.1002; 5: 22-26.

B. U.S. Patent No. 6,709,993 (Strength) (Ex.1003)

- 74) Strength is a United States patent that issued on March 23, 2004, and is available prior art under 35 U.S.C. § 311(b).
- 75) Strength states in its Abstract: “A base textile has a camouflage pattern on the first Surface and a coating on the Second Surface. The coating is an ethylene methyl acrylate thermoplastic with a carbon black pigment. The base textile and coating have a visible light transmission such that shadows of hunters or others inside a

blind of the camouflage are not visible on the opposite side of the camouflage.”

Ex. 1003; Abstract.



76) As shown in Fig. 1 (above), Strength discloses a camouflage material 10 that is a base textile 100 having a camouflage pattern 110 on a first side or surface 111 of the base textile 100. Ex.1003; 1:37-41. In one example, the base textile 100 of the camouflage material 10 is a woven material, namely a plain weave textile (see discussion above regarding plain weave fabric). Ex.1003; 2:62-66.

- 77) The camouflage pattern 110 on the first side 111 of the base textile 100 can be a pattern that resembles tree trunks, branches, limbs, twigs, leaves, rocks, grass, weeds, or other natural designs. Ex.1003; 1:41-43. The camouflage pattern 110 can alternatively comprise regions or zones of differing colors and/or shades that have a tendency to blend with the surrounding environment. Ex.1003; 1:43-45. The base textile 100 also comprises a coating 200 on a second side or surface 112 that is opposite to the first side or surface 111 of the base textile. Ex.1003; Fig. 1; 1:45-47.
- 78) The combination of the coating 200 and the base textile 100 provides a mitigating effect to light on the second side or surface 112, causing the interior of a hunting blind using such base textile 100 to be darker than the exterior, so that shadows are not visible on the opposite side (i.e., the first side 111) of the camouflage material 10. Ex.1003; 1:67-2:3.
- 79) Fig. 2 of Strength (below) is a graph illustrating the amount of light transmission through the base textile 100 along the Y-axis for varying amounts of carbon black pigment in the coating 200 on the second side 112 of the base textile 100 along the X-axis.
- 80) The data in Fig. 2 were determined by the inventors using a 1000 ft.-candlelight source (or 380 μ A *) located adjacent to the camouflage pattern side 111 of the camouflage material 10 and a sensor located adjacent to the coating side 200 of the

camouflage material 10. (*It is presumed that the units used for the light intensity, μA , are the current reading in microamps of the light sensor used by the inventors.)

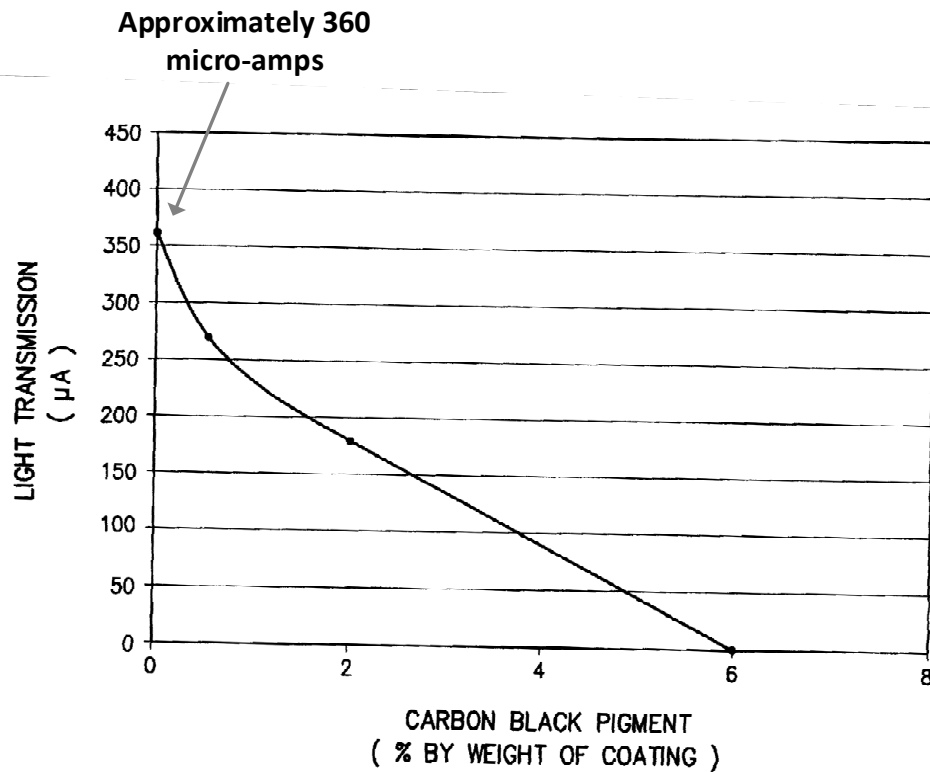


FIG. -2-

- 81) The graph shows that as the percentage of black pigment (by weight) is increased in the coating 200, the amount of light transmission through the base textile 100 decreases. In particular, with no black pigment in the coating 200 (i.e., a coating that is not dark), light transmission through the base textile 100 is about 360 μA , Ex.1003; 3:30-4:5, Example 4, while a base textile 100 having a coating 200 containing a carbon black pigment in the amount of 2% by weight results in a light transmission through the base textile 100 of about 180 μA , which is a reduction in

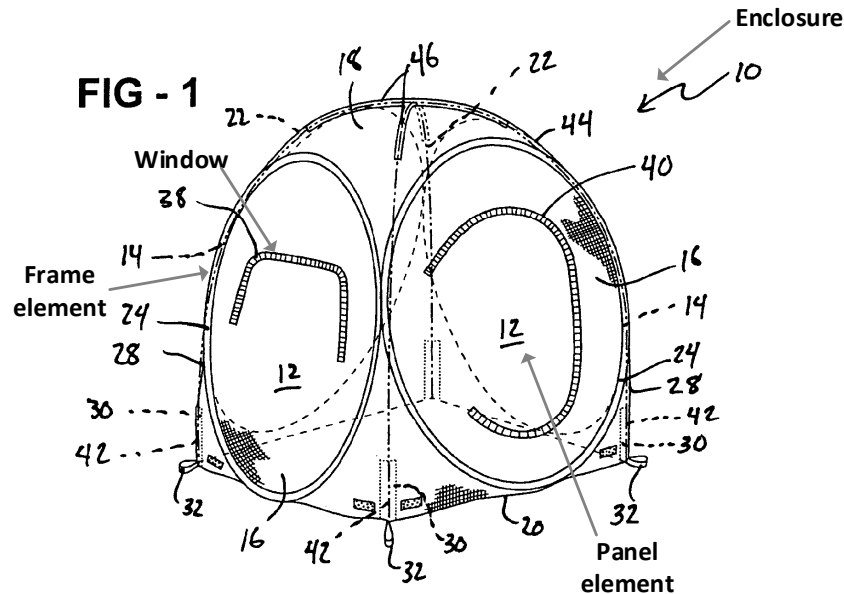
light transmission of about 50% compared to the textile having no pigment in the coating 200. Ex.1003; 3:13-19, Example 2. Lastly, as the amount of carbon black pigment in the coating is increased, the light transmission through the base textile further decreases. For example, upon reaching an amount of carbon black pigment of 6% by weight in the coating 200, the light transmission through the base textile 100 decreased to 0 μ A, effectively absorbing most of the light and inhibiting most of the light from transmitting through the base textile 100. Ex.1003; 2:66-3:10, Example 1.

- 82) Thus, Strength discloses a woven mesh fabric or textile 100 for use in hunting blinds that has a camouflage pattern 110 on a first side 111 and a dark coating 200 on a second, opposite, side 112. Further, Strength teaches that by varying the amount of a carbon black pigment in the dark coating 200, one can tune, or adjust, the amount of light transmission into the interior of the hunting blind from the exterior of the hunting blind to make the interior of the hunting blind darker than the exterior and obtain a desired “one-way” viewing feature using the woven mesh fabric 100.

C. U.S. Patent No. 7,137,399 (Ransom)(Ex.1004)

- 83) Ransom is a United States patent that issued on November 21, 2006 and is available prior art. Ransom discloses a hunting blind structure that has a

camouflage pattern along side panels that include a window that can be opened to provide a shooting position.

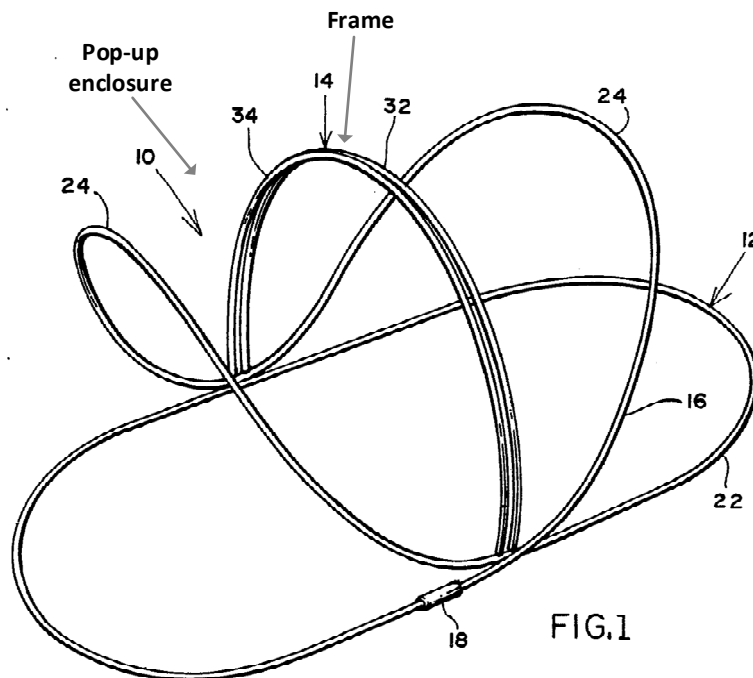


84) The Ransom reference, as shown in Fig. 1 thereof discloses an enclosure 10 sized to accommodate one or more occupants for hunting. Ex.1004; 2:60-65. The enclosure 10 is composed of resilient, flexible frame elements 14 with panel elements 12 of material attached to the frame elements 14 to form a portable, pop-up structure. Ex.1004; 2:66-3:2. The panel elements 12 may contain a camouflage pattern, Ex.1004; 3:38-43; 5:9-13, and join together to form the enclosure 10 that includes a roof portion 18. Ex.1004; 3:2-4. Access ports such as a window 38 may be provided on one or more of the panel elements 12 that can be opened and provide a shooting position for the occupant. Ex.1004; 3:64-66.

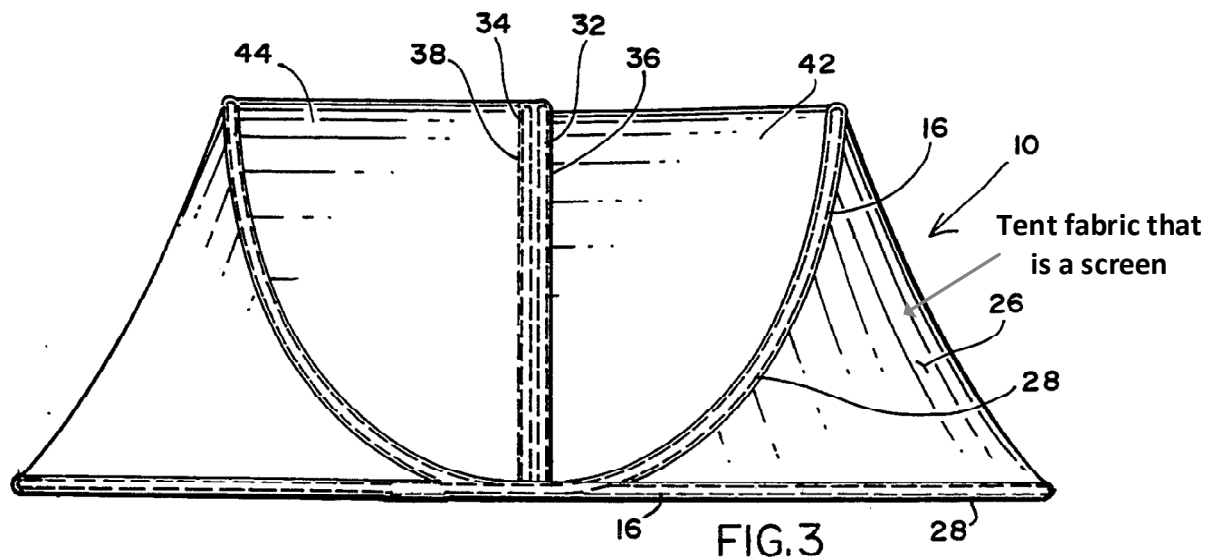
D. U.S. Patent No. 5,385,165 (Hazinski)(Ex.1005)

- 85) Hazinski is a United States patent that issued on January 31, 1995 and is available prior art. Hazinski discloses in Fig. 1 below a hunting blind enclosure 10 that has a pop-up structure that includes a frame 12, 14 made of resilient loops 22, 24.

Ex.1005; 1:64-2:1; Fig.1; 2:61-3:12.



- 86) A blind fabric 26, as shown in Fig. 3 below, is fitted or attached to the loops 22, 24, and may be a screen or mesh-like material, or be see through, and has a camouflage pattern thereon. Ex.1005;4:13-14.



- 87) The blind fabric 26 on the frame 12, 14, 22, 24 allows the hunter to have 360 degrees of visibility from within the blind 10 and provides him with invisibility. Ex.1005; 4:14-17.

VI. SUMMARY OF ARGUMENT

- 88) The '535 patent claims a pop-up hunting blind employing a woven mesh fabric on at least one side of the blind. The woven mesh fabric has a camouflage pattern on a first, external side of the blind, and a dark coating on a second, internal side of the blind. The woven mesh fabric provides a "one-way" viewing feature, wherein an occupant of the blind can see out while game that are external to the blind cannot see in. The prior art herein shows these hunting blind features. Whybrew teaches most elements of the '535 patent's independent claims, including a woven mesh fabric that provides a "one-way" viewing feature by exploiting a light

differential between an inside and an outside of the blind. For independent claim elements arguably not taught by Whybrew, namely that the mesh fabric contains a camouflage pattern on the first, external side and a dark coating on the second, or internal side, Strength teaches, for hunting blinds, a base textile composed of a woven mesh fabric that employs a camouflage pattern on the first, external side and a dark coating on the second, internal side of the woven fabric. Further, Strength teaches that by varying an amount of carbon black pigment in the dark coating, one can tune an amount of light transmission through the base textile, thereby adjusting a desired darkness in the interior of the hunting blind. Adding this feature to the hunting blind of Whybrew would have been obvious, and thus yields the alleged invention claimed in the '535 patent.

- 89) In sum, as demonstrated by a preponderance of the evidence herein the '535 patent claims are unpatentable as being obvious in view of the cited prior art.

VII. SPECIFIC GROUNDS FOR UNPATENTABILITY

A. Ground A: Obviousness of claims 1-5, 8-13 and 15-18 over Whybrew in view of Strength

1. Independent Claim 1

- 90) Referring to the Claim Listing Appendix: Whybrew discloses Claim 1 elements [1A]-[1C] (and arguably [1D]) and [1F]-[1H], while Strength discloses elements [1D]-[1E]. As explained below in paragraphs 120-126, a PHOSITA is motivated

to combine Whybrew and Strength to arrive at the alleged invention of Claims 1 (and 19) and any relevant corresponding depending claims.

i. [1A]: “A camouflage structure, comprising:”

91) Whybrew (Ex.1002) discloses a hunting blind as shown below in Fig.1A – Feature [1A] that includes a foldable structure that is covered with a fabric having a camouflage pattern on at least the outside. Ex.1002; Fig. 1; 20, 37.

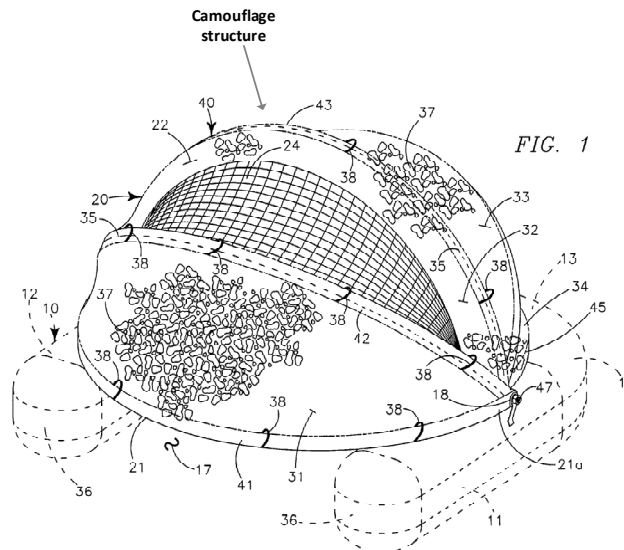


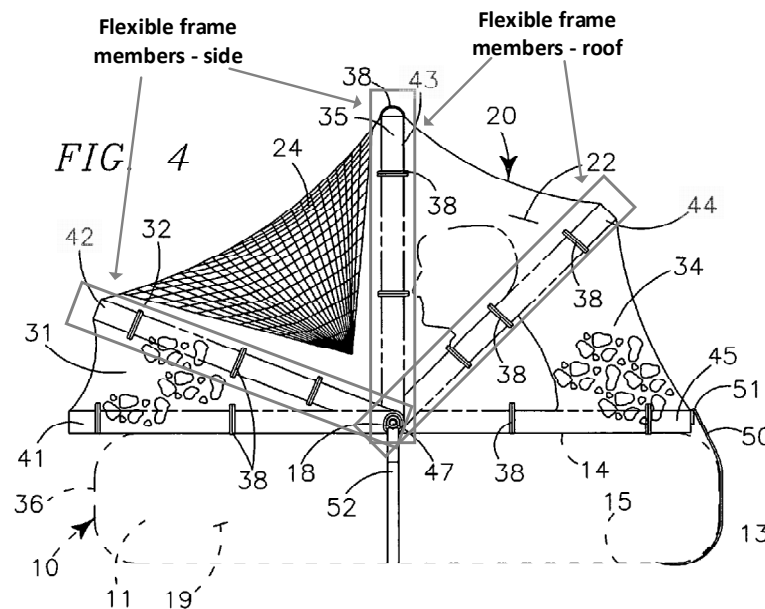
FIG. 1A – Feature [1A]

92) Whybrew teaches a structure “that overcomes various drawbacks of known sportsman’s blinds by providing a blind that blends into the environment in which it is used, camouflages the occupant from visualization from all angles of approach....” Ex.1002; 2:65-3:1. Further, Whybrew states: “a further object to provide a blind that is camouflaged.” Ex.1002; 3:47. Based on the figure of

Whybrew provided above and at least the referenced teachings included therein, it is my opinion that a PHOSITA understands that a hunting blind is a structure and that Whybrew discloses a camouflage structure. Ex.100X,¶96. Thus, Whybrew teaches [1A].

- i. **[1B]: “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; and”**

93) Whybrew discloses a portable frame composed of multiple frame members, as illustrated below in Fig. 4 thereof, which is annotated as Fig.1B – Feature [1B].



- 94) Initially, regarding the claim language “a pop-up frame,” the ’535 patent does not explicitly define the term. Rather, the detailed description simply states that the hunting blind has a structure that is similar to a pop-up tent. Ex.1001, 9:33-35. Since pop-up tents come in a myriad of shapes, sizes and styles of construction, a broad definition of the term is employed herein as any form of flexible frame arrangement that is portable and exhibits an ease of deployment.
- 95) Fig. 1A – Feature [1A] provided above of Whybrew shows a frame 40 of the hunting blind in a perspective view, while Fig. 1B – Feature [1B] immediately above shows the individual flexible frame members 41, 42, 43, 44, 45 that together form the frame 40. Whybrew calls these flexible frame members “stays,” stating that the “blind provides a flexible body 20 supported by a frame 40 formed of plural elongate flexibly resilient stays 41, 42, 43, 44, 45 pivotally interconnected with one another at proximate end portions to support the flexible body 20 in a hemispherical shape....” Ex.1002; 4:40-44.
- 96) As shown in Fig. 1B – Feature [1B], two of the stays or frame members 42, 43 are spaced apart from one another at distal ends thereof and define a side of the frame that supports a mesh window 24 (discussed in greater detail infra) allowing an occupant of the blind to view out a side of the structure as shown. The figure also shows two of the stays or frame members 43, 44 being spaced apart from one another at their distal ends that define a roof of the frame. Whybrew illustrates a

section 33 of fabric between the frame members 43, 44 as a location that is over the occupant's head and operates to keep an occupant dry in rainy conditions, Ex.1002; 5:35-39, and thus the frame members operates as spaced apart frame members along a roof of the blind.

97) Therefore at least Fig. 1A – Feature [1A] and Fig. 1B – Feature [1B], along with corresponding text in Whybrew teach 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, as claimed.

98) Thus, Whybrew teaches [1B].

- i. **[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:”**

99) Whybrew discloses in Fig. 4 a panel of mesh material of interwoven fabric that attaches between two frame members along a side of the camouflage structure as claimed. As shown in Fig. 1C – Feature [1C] below, a window 24 of mesh material extends between frame members 42, 43 to define a section 32 that operates as a side of the hunting blind. Ex.1002; 5:3-5.

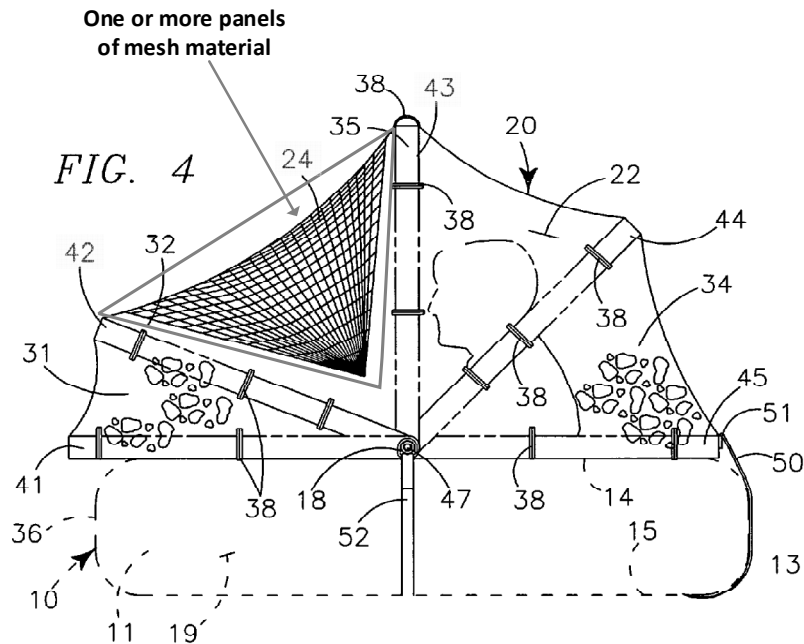


FIG. 1C – Feature [1C]

100) The mesh fabric window 24 is formed of a flexible mesh-like material having a weave that is less dense than a weave of the fabric material forming sections 31, 33, 34 of the flexible body 20 of the hunting blind. Ex.1002; 5:9-12. Thus, the mesh fabric window 24 constitutes a panel of mesh material of interwoven fabric as claimed. Further, as the mesh fabric window 24 extends between the spaced apart frame members 42, 43 that define a side of the blind, as evidenced by the occupant in Fig. 1C – Feature [1C] looking sideways out of the blind through the mesh window 24, the mesh window 24 defines a side of the camouflage structure in Whybrew.

101) It is noted that the above analysis contemplates a claim construction wherein the one or more panels of mesh material of interwoven fabric is “configured to be

attached between” the frame members as meaning that the panel 24 of mesh in Whybrew can be directly or indirectly attached to the frame members 42, 43. As taught in Whybrew, the mesh fabric window 24 is in the second section 32 of fabric and attaches thereto via stitching. Ex.1002; 5:3-9. However, the reference also explicitly states that such an indirect attachment is merely “preferred” which implies that other arrangements are contemplated and permissible. Ex.1002; 5:3-9. In addition, Whybrew teaches that the mesh fabric window 24 has a shape similar to the sector in which it resides so that when the mesh fabric window 24 is fastened to the second section 32 of the flexible body 20, the mesh fabric window 24 is stretched into a shape similar to that of the adjacent sections 31 and 33. Ex.1002; 5:28-34. Thus, while not explicitly teaching a direct attachment of the mesh material to a frame member, the reference implies that various attachment arrangements are contemplated and states a desire for the mesh fabric window 24 to stretch and resemble the shape of the other sectors, which invites a PHOSITA to make the entire sector between frame members 42, 43, be composed of the mesh window and attach to the frame members 42, 43. As such a modification would not require any replacement of components, or change the fundamental design, in my opinion, such a modification would have a reasonable expectation of success, and thus be obvious to a PHOSITA to make the mesh window 24 extend all the way between and attach to the frame members 42, 43.

102) Therefore, under either construction of the claim language, Whybrew discloses 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.

103) Thus, Whybrew teaches [1C].

i. [1D]: “a first side with a camouflage pattern; and”

104) Whybrew teaches that the one or more panels of mesh material have a first side that has a camouflage pattern thereon. For example, the reference states “a further object to provide a blind that is camouflaged.” Ex.1002, 3:47. Whybrew also states that the blind has a flexible camouflaged body having a mesh fabric window. Ex.1002; 3:27-29. Lastly, the flexible body fabric exhibits a camouflaged pattern 37 on at least an outer surface 22 thereof. Ex.1002; 4:46-50. No teaching in Whybrew precludes the camouflaged pattern 37 from residing on the outside surface of the mesh fabric window 24, and in my opinion a PHOSITA, appreciating the benefit of having the camouflage pattern 37 on the non-mesh material would readily appreciate the benefit of having the camouflage pattern 37 on the first side of the fabric mesh window 24, in order to further benefit in making the hunting blind blend into its surrounding environment. Thus, Whybrew discloses feature [1D].

- 105) If it is determined that Whybrew does not disclose [1D] (i.e., holding that no teaching exists in Whybrew that the fabric mesh window 24 has a camouflage pattern 37 thereon), the Strength reference teaches this feature, and a PHOSITA would be motivated to modify Whybrew in view of Strength.
- 106) Strength describes the base textile being tested in Example 1, and states that the base textile is a plain weave textile formed of 70 denier per yarn textured polyester yarn, with about 85 yarns per inch in the warp direction and about 90 yarns per inch in the fill direction. Ex.1003; 2:62-66. With this information, the openness (this term is discussed above) of the fabric can be calculated.
- 107) Linear Density is mass per length and Volume Density is mass per volume. By simple dimensional analysis, dividing Linear density by Volume density results in dimensions of area (i.e., length squared). So using the given value of Linear density 70 denier = 70 grams/9km, and the known value of Volume Density for Polyester, 1.39g/cc, we do the calculation:
- (Attention must be paid to using consistent units: 9km=9x10⁵cm)
- $$\text{Area} = \text{Linear Density} / \text{Volume density} = (70\text{g}/9 \times 10^5 \text{cm}) / (1.39\text{g/cc})$$
- $$= [70/1.39 \times 9] \times 10^{-5} \text{ (cm}^2\text{)} = 5.6 \times 10^{-5} \text{ cm}^2$$
- So, the area of a 70 denier polyester yarn is 5.6x10⁻⁵ cm²
- Assuming a circular cross section, $A = \pi(d/2)^2$,
- So, the diameter of 70 denier polyester yarn is

$$d=2\sqrt{A/\pi} = (8.5 \times 10^{-3}) \text{ cm}$$

Using 2.54 cm/inch, the diameter of 70 denier polyester yarn in inches is

$$d=3.34 \times 10^{-3}=.00334 \text{ inches}$$

108) If we use the value in Strength of 85 warp yarns per inch, the 85 yarns will fill $85 \times (.00334) = .2839$ inches of that space. That is, the 85 warp yarns comprise about .2839 inches of each inch of the fabric in the warp direction. ***Thus, about 30% of the space (warp) is filled with the yarns, leaving 70% open.*** A similar argument could be made regarding the filling direction, using 90 yarns per inch instead of 85. ***The difference is minimal, $90 \times (.00334) = .306$, again giving 30%.***

109) Thus, this resultant base textile 100 provided in Strength exhibits an “openness” that corresponds to a mesh material. (MESH FABRICS: A broad term for fabric characterized by open spaces between the yarns. Mesh fabrics may be woven, knit, lace, net, crochet, etc. (Ex.1008, p. 96)

110) Therefore it is my opinion based on the teaching of Strength that Strength discloses a base textile ***that is a mesh material*** and has a camouflage pattern on a first surface and a coating on the second, opposite surface that contains a carbon black pigment. The base textile having the coating has a visible light transmission such that shadows of hunters or others inside a hunting blind of the camouflage material 10 are not visible on the opposite side thereof. Ex.1003; Abstract.

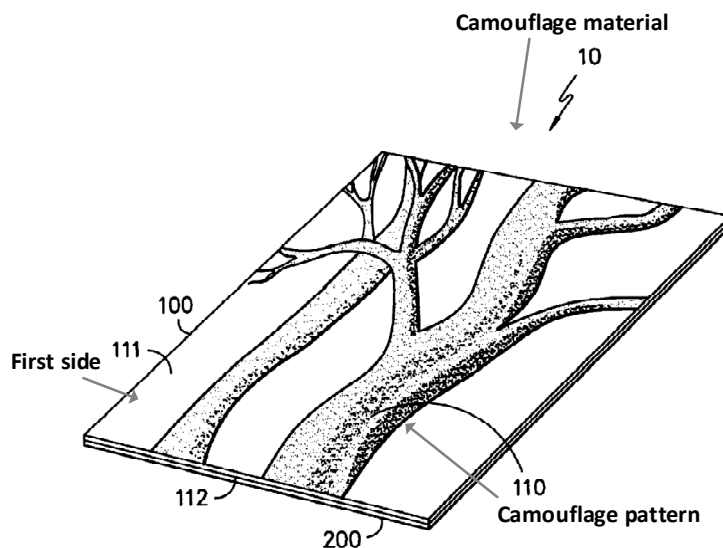


FIG. -1-

FIG. 1D – Feature [1D]

111) In particular, as shown in Fig. 1D – Feature [1D] above, Strength discloses a camouflage material 10 that is a base textile 100 having a camouflage pattern 110 on a first side or surface 111 of the base textile 100. Ex.1003; 1:37-41. In one example, the base textile 100 of the camouflage material 10 is a woven material, namely, as just discussed, *a plain weave textile formed of 70 denier per yarn textured polyester yarn, with about 85 yarns per inch in the warp direction and about 90 yarns per inch in the fill direction.* Ex.1003; 2:62-66. *Such a material constitutes a mesh material.*

112) The camouflage pattern 110 on the first side 111 of the base textile 100 can be a pattern that resembles tree trunks, branches, limbs, twigs, leaves, rocks, grass, weeds, or other natural designs. Ex.1003; 1:41-43. The camouflage pattern 110

can alternatively comprise regions or zones of differing colors and/or shades that have a tendency to blend with the surrounding environment. Ex.1003; 1:43-45.

113) A PHOSITA would be motivated to modify Whybrew by replacing the mesh fabric window 24 with the mesh base textile 100 of Strength for the reasons set forth in paragraphs 120-126 below, and such reasoning is incorporated herein by reference. Thus, Strength teaches [1D].

i. **[1E]: “a second side with a dark color coating, said second side opposite to the first side; and”**

114) Strength discloses a base textile 100 that is a mesh material and has a camouflage pattern 110 on a first side 111 of the base textile 100 and a dark color coating 200 on a second side 112 of the base textile 100 that is opposite of the first side 111.

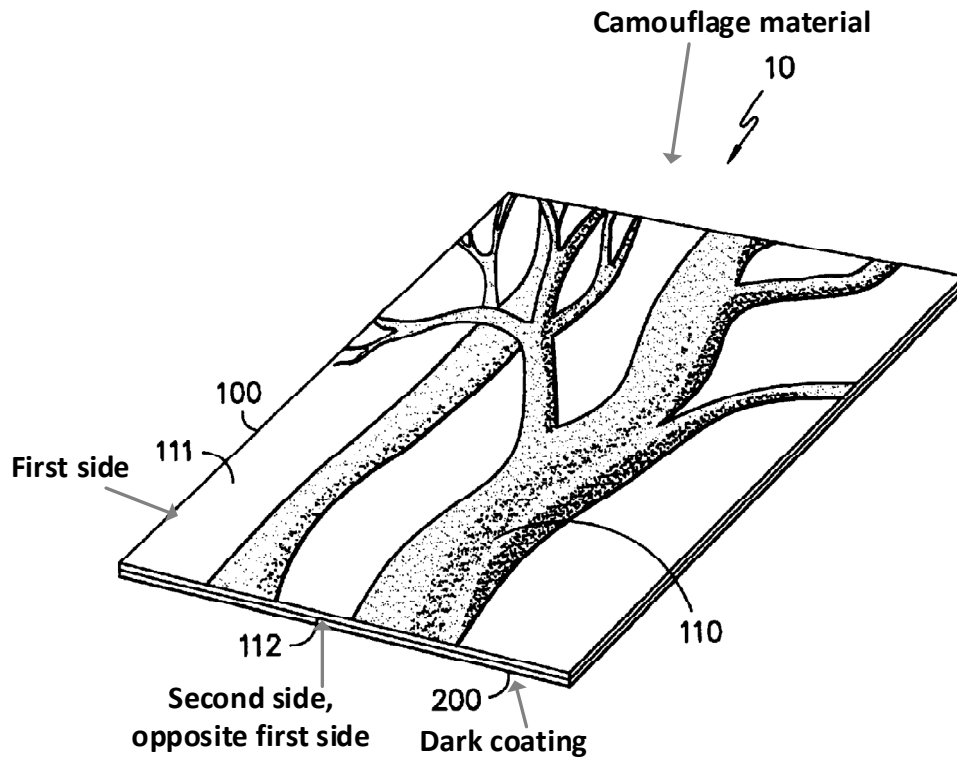


FIG. -1-

FIG. 1E.1 – Feature [1E]

115) As shown in Fig. 1E.1 – Feature [1E] above, Strength discloses a camouflage material 10 that is the base textile 100 having the camouflage pattern 110 on a first side or surface 111 of the base textile 100. Ex.1003; 1:37-41. Fig. 1E – Feature [1E] also shows that the base textile 100 comprises a coating 200 on a second side or surface 112 that is opposite to the first side or surface 111 of the base textile. Ex.1003; Fig. 1; 1:45-47.

116) The combination of the coating 200 and the base textile 100 provides a barrier to light on the second side or surface 112 so that shadows are not visible on the

opposite side (i.e., the first side 111) of the camouflage material 10. Ex.1003;

1:67-2:3. The “darkness” of the coating 200 affects the light transmission through the base textile 100.

117) As discussed above, Fig. 2 of Strength, provided again below in Fig. 1E.2 –

Feature [1E], is a graph illustrating an amount of light transmission through the base textile 100 along the Y-axis for varying amounts of carbon black pigment in the coating 200 on the second side 112 of the base textile 100 along the X-axis.

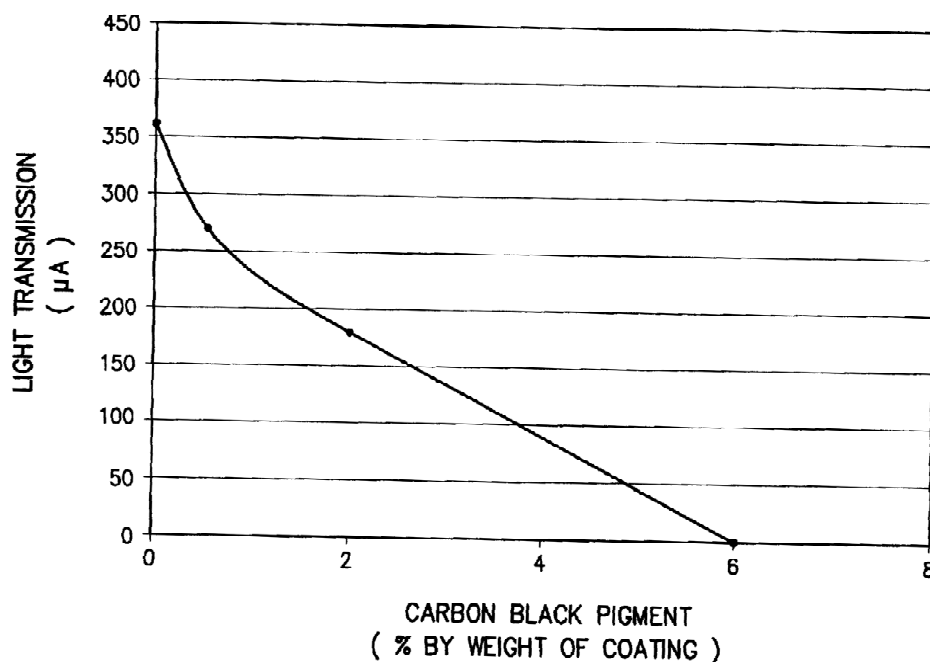


FIG. -2-

FIG. 1E.2 – Feature [1E]

118) The graph shows that as the percentage of black pigment (by weight) is increased in the coating 200 (making the coating “darker”), an amount of light transmission through the base textile 100 decreases. More particularly, Strength teaches that

with no black pigment in the coating 200 (i.e., a coating that is not dark), a light transmission through the base textile 100 is about 360 μ A, Ex.1003; 3:30-4:5, Example 4. In contrast, a base textile 100 having a coating 200 containing a carbon black pigment in the amount of 2% by weight results in a light transmission through the base textile 100 of about 180 μ A, which is a reduction in light transmission of about 50% compared to the textile having no pigment in the coating 200. Ex.1003; 3:13-19, Example 2. Lastly, as the amount of carbon black pigment in the coating is increased, the light transmission through the base textile further decreases. For example, upon reaching an amount of carbon black pigment of 6% by weight in the coating 200, the light transmission through the base textile 100 decreased to 0 μ A, effectively absorbing all or at least much of the light and inhibiting any or most of the light from transmitting through the base textile 100. Ex.1003; 2:66-3:10, Example 1.

119) Thus, Strength discloses a woven fabric or textile 100 that is a mesh fabric for use in hunting blinds that has a camouflage pattern 110 on a first side 111 and a dark coating 200 on a second, opposite side 112. Further, Strength teaches that by varying an amount of a carbon black pigment in the dark coating 200 on one side of the textile, one can tune or adjust an amount of light transmission from an interior of the hunting blind to an exterior of the hunting blind to obtain a desired “one-way” viewing feature using the woven mesh fabric 100. Thus, by adding a

dark coating to the second side of the textile, one can decrease a light transmission therethrough, thus making the environment inside the hunting blind darker than the environment outside of the hunting blind.

120) Thus, Strength teaches [1E], and it would be obvious to combine together Whybrew and Strength, or modify Whybrew in view of Strength, for at least the following reasons.

121) When considering obviousness in view of a combination of prior art, various rationales may be employed: (1) combining prior art elements according to known methods to yield predictable results, (2) a simple substitution of one known element for another to obtain predictable results, and (3) some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention. *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007). Each of the above considerations support a modification of Whybrew in view of Strength to arrive at the claim features at issue.

122) The first two rationales set forth above in this instance go together. That is, combining the elements set forth in Whybrew and Strength may be performed according to known methods to yield predictable results and, in this case, constitutes a simple substitution of one known element for another to obtain a predictable result. Specifically, Whybrew discloses a camouflage hunting blind,

wherein one of the elements thereof is a mesh fabric window 24 that provides, in conjunction with the less translucent fabric material of the blind, for a “one-way” viewing feature. Ex.1002; 5:12-18. Strength discloses a base textile 100 that is a mesh material for a hunting blind that has camouflage 110 on a first, outside, surface 111 and a dark coating 200 on a second, inside, surface 112. Ex.1003, Fig. 1; 38-48. The dark coating 200 on the inside surface 112 contains a black pigment and the amount of black pigment alters an amount of light transmission through the textile, thereby facilitating an improved “one-way” viewing feature by reducing the level of illumination in the interior. Ex.1003; Fig. 2; 1:66-2:3. The combining of Whybrew and Strength involves a simple substitution of the base textile 110 of Strength for the mesh fabric window 24 of Whybrew. As Whybrew indicates the mesh fabric window 24 is stitched to other portions of the fabric body 20, the base textile 100 of Strength, which is also a mesh, can easily be stitched into the body 20 as well. Further, Whybrew indicates that the light differential between the interior and the exterior of the hunting blind creates the “one-way” viewing capability, Ex. 1002; 5:16-18, and substituting Strength’s base textile 100 into Whybrew’s hunting blind allows for a greater inhibition of light into the hunting blind, thus further increasing the light differential that improves the “one-way” viewing feature. Thus, it is my opinion that a PHOSITA would have a reasonable

expectation of success in both substituting one mesh for another and improving the “one-way” viewing capability of the modified hunting blind.

123) In addition, there is some teaching, suggestion, or motivation in the prior art references at issue that would have led one of ordinary skill to modify Whybrew in view of Strength to arrive at the claimed invention, namely in the nature of the problem to be solved. *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1276 (Fed. Cir. 2004) (holding that motivation to combine was found because each reference was directed to the same problem).

124) Whybrew is directed to a hunting blind that has a camouflage material body 20 on a frame 40 and employs a mesh fabric window 24 for an occupant of the hunting blind to view from the interior to the exterior of the blind. One problem to be solved by Whybrew is game, that is exterior to the hunting blind, seeing an occupant within the hunting blind, and consequently exiting the exterior area near the hunting blind. Ex.1002; 2:23-29, 52-56. Whybrew addressed this problem with the combination of the mesh fabric window 24 with the camouflage body 20 which is composed of a material that is less translucent than the mesh fabric window 24, Ex.1002; 5:19-21, which results in a light differential, wherein it is darker in the interior of the hunting blind than the exterior of the hunting blind. Ex.1002; 5:16-18. This light differential results in a “one-way” viewing feature, wherein an occupant within the hunting blind can see game exterior to the hunting

blind, while the game cannot see the occupant within an interior of the hunting blind. Ex.1002; 5:16-26. Thus, Whybrew employed a less translucent material for the camouflage body 20 of the hunting blind than the fabric mesh window 24 to increase the light differential between an interior and an exterior of the blind in order to address the problem to be solved of preventing game from seeing an occupant within the hunting blind.

125) Strength is directed to a base textile mesh material for use in hunting blinds. It also appreciates that the camouflage material used for conventional blinds was sufficiently translucent to allow for a silhouette of a hunter inside the blind to be seen by game external to the blind. Ex.1003; 1:13-20. Strength addressed this problem by disclosing a base textile 100 that has a camouflage pattern 110 on one side 111 (the exterior side) and a dark coating 200 on a second, opposite side (an interior side). Ex.1003; 1:38-48. By employing the dark coating (e.g., containing a black pigment), more light from outside the blind was prohibited from transmitting through the base textile 100 to the interior of the hunting blind, thereby making it darker within the blind interior. Ex.1003; 1:66-2:3. This improvement in light differential results in an improved “one-way” viewing using the base textile 100.

126) Thus, both Whybrew and Strength are directed to hunting blinds and attempt to solve the same problem of avoiding a viewing of an occupant within a hunting

blind from outside the hunting blind. Both address the problem with materials of the hunting blind to increase the light differential between the interior and the exterior of the hunting blind. Therefore, it is my opinion that a PHOSITA would be motivated to modify the hunting blind of Whybrew by replacing the mesh fabric window 24 with the base textile 100 mesh material of Strength to further increase the light differential and thus improve the “one-way” viewing feature of the modified hunting blind. Therefore, in my opinion a modification of Whybrew in view of Strength is proper and results in the claimed invention of claim 1. Further, combining Whybrew and Strength is not redundant in my opinion as both improve light contrast in different ways. Whybrew does so by making the non-mesh material less translucent, and Strength does so by limiting light transmission through the mesh material. Thus it is my opinion that Strength provides further improvement to the viewability feature of Whybrew. In addition, adding Strength allows for camouflage to be on the outside of the mesh, thereby making the resultant hunting blind better blend into the surrounding environment.

- i. **[1F]: “one or more panels of non-mesh material provided along the roof of the camouflage structure and configured to be attached to the at least two spaced apart frame members that are along the roof of the camouflage structure to cover an area between the at least two spaced apart frame members;”**

127) Whybrew discloses one or more panels of non-mesh material along a roof of the hunting blind as claimed. Fig. 1F.1 – Feature [1F] shows the hunting blind of

Whybrew and highlights a portion thereof having a non-mesh material over a roof portion of the hunting blind.

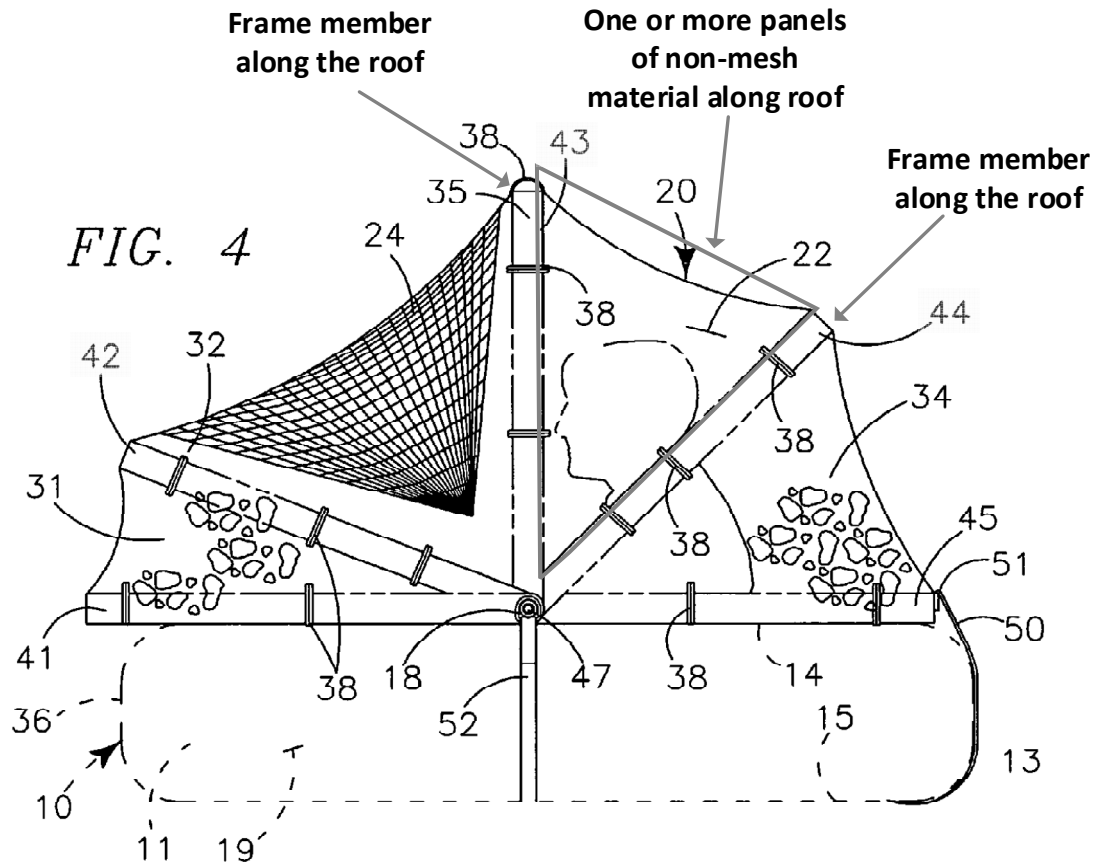


FIG. 1F.1 – Feature [1F]

128) A panel 33 (shown in Fig. 3) of non-mesh material is provided between the frame members 43, 44 of the camouflage structure and a panel 34 (shown in Fig. 4) shown between frame members 44, 45. In Whybrew, after describing the mesh fabric window 24 occupying a side of the blind that allows “one-way” viewing capability for an occupant therein, Ex.1002, 5:12-18, the reference discloses that sections 31, 32, 33, 34 of the body 20 are formed of a material less translucent or light permeable than the mesh fabric window 24. Ex.1002; 5:19-21.

Consequently, more radiation from the sun is blocked by the non-mesh material (flexible body 20 in sections 31, 32, 33, 34) relative to the mesh fabric window 24, causing an interior of the blind to be darker than the exterior. Ex.1002; 5:19-21.

129) The non-mesh material is also waterproof, thus allowing sections 31, 32, 33, 34 to keep an occupant within the blind relatively dry. Ex.1002; 5:35-37. Whybrew specifically states that an occupant within the blind can sit under the third section of the non-mesh material, and thus it is my opinion that the third section 33 operates as a roof of the blind between the frame members 43, 44. Ex.1002; 5:35-39.

130) Feature [1F] recites that the non-mesh material is “attached to” the at least two spaced apart flexible frame members. The ’535 Patent does not define what is meant by the phrase “attached to” the flexible frame members. The only available description in the ’535 Patent addressing a material and a flexible frame member is that the material be “secured between” the flexible frame members. Ex.1001; 9:36-37. Thus, if the non-mesh material is secured with respect to the flexible frame, then such material can be said to be attached to the flexible frame members.

131) Whybrew teaches that sections 31, 32, 33, 34 of the flexible body 20 have adjacent edge portions that are fastened together and the sections 31, 32, 33, 34 are collectively supported by the frame 40. Ex.1002; 4: 63-67. Thus, in the Whybrew arrangement, the sections are in contact with and stretched over and secured with

respect to the frame 40 that consists of flexible frame members. Therefore, it is my opinion that Whybrew discloses a non-mesh material that is configured to be attached to the at least two spaced apart frame members 43, 44 that are along the roof of the camouflage structure to cover an area between the at least two spaced apart frame members. Ex.1002; 5:19-21; 5:35-37.

132) Thus, Whybrew teaches [1F].

133) If it is argued that Whybrew does not disclose a direct attachment of the non-mesh material to the flexible roof frame members, it is my opinion that such a physical attachment constitutes an insubstantial difference with respect to the teaching of Whybrew. Nevertheless, a direct attachment of a non-mesh material with flexible roof frame members was well within the general knowledge of a PHOSITA, as evidenced by Ransom, Ex.1004, that clearly shows non-mesh material forming a roof being attached to flexible roof frame members.

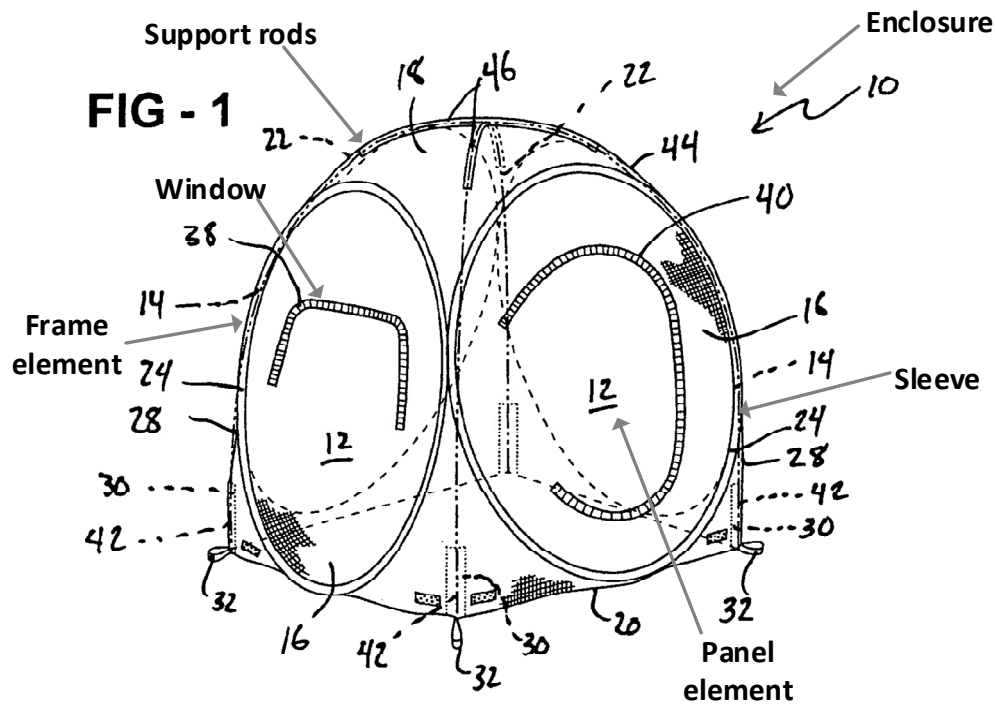


FIG. 1F.2 – Feature [1F]

134) Ransom states that panel elements 12 each have a frame element 14 and covering material 16 on the frame element 14 through a sleeve 24. Ex.1004; 3:47-49.

Further, the reference states that, with respect to the roof, support rods 22 occupy the full diagonal perimeter 44 of the enclosure 10 and support the roof portion 18 from within via the sleeves 46. Alternatively, the sleeves 46 can be provided exterior to the roof portion 18 of the enclosure 10 and support rods 22 may traverse the exterior of the enclosure through the sleeves. 46. Ex.1004; 4:18-25.

135) Clearly then, Ransom reflects the general knowledge of a PHOSITA regarding at least one way of attaching of non-mesh material associated with the roof to flexible roof frame members. Ex.1005 (Hazinski) also discloses attaching material to its

frame members. Thus, in my opinion employing such attachment to the combination of Whybrew and Strength would be obvious. Therefore, the combination of Whybrew and Strength discloses feature [1F].

136) Alternatively, a PHOSITA would be motivated to combine together the teachings of Whybrew, Strength and Ransom (or Hazinski) to arrive at feature [1F].

i. **[1G]: “wherein the one or more panels of the mesh material define an outer surface of the camouflage structure; and**

137) Whybrew discloses in Fig. 4 (see Fig. 1G – Feature [1G] below) of its patent that

the fabric mesh window 24 forms an outside surface of one side of the hunting blind. Whybrew states: the “[m]esh fabric window 24 is carried by the flexible body 20, over an opening (not shown) preferably defined in the second section 32, and is fastened to the second section 32 with stitching (not shown) extending through edge portions of the mesh fabric window 24 and through the second section 32 spacedly adjacent peripheral edge of the opening (not shown).”

Ex.1002; 5:3-9.

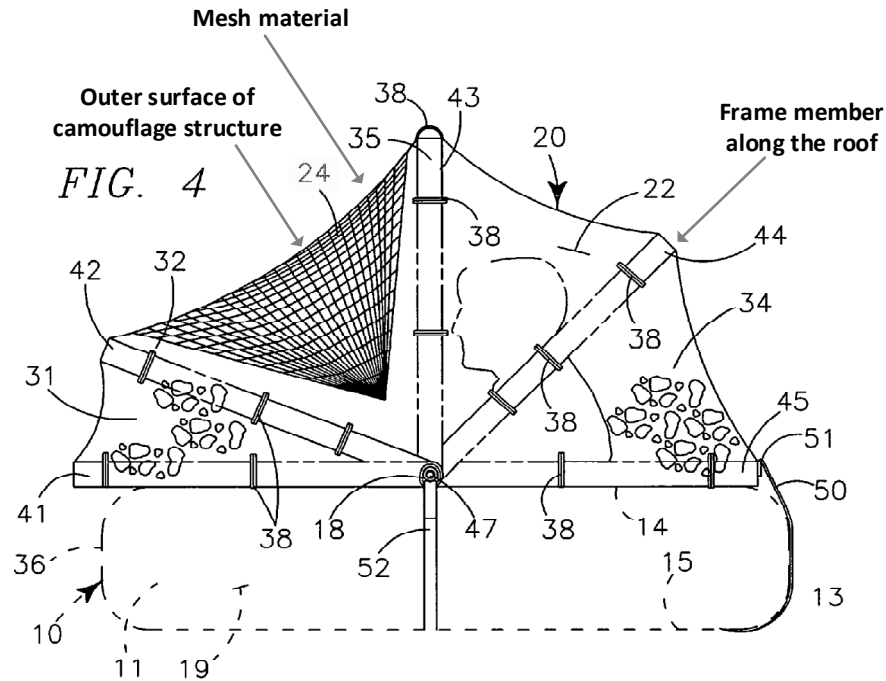


FIG. 1G - Feature [1G]

138) As seen clearly in Fig. 1G – Feature [1G], the mesh fabric window 24 for the outer surface of one side of the hunting blind, and thus discloses the feature at issue.

- i. **[1H]: “wherein the one or more panels of non-mesh material are non-transmissive such that incident radiation from an exterior of the camouflage structure is not transmitted through the non-mesh material.”**

139) Whybrew discloses that the portions of the flexible body material 20 that are associated with sections 31, 33, 34 are less translucent than that of the fabric mesh window 24 and specifically block more radiation from the sun than does the mesh material. Ex.1002; 5:19-27; 9:9-10. In fact, the portion of the body 20 in the section 33 that forms the roof is designed to keep the interior of the hunting blind

darker than the exterior to improve the light differential and thus enable the “one-way” viewing feature. Ex.1002; 5:16-23.

140) Therefore, it is my opinion that Whybrew discloses the feature that the one or more panels of non-mesh material are non-transmissive such that incident radiation from an exterior of the camouflage structure is not transmitted through the non-mesh material. That is, Whybrew teaches non-transmission of light through the fabric as being substantially less than through the mesh and it is my opinion that a PHOSITA understands non-transmissive to mean providing relative shade to the occupant of the hunting blind. As such, Whybrew teaches [1H], and a combination of Whybrew and Strength disclose every feature of claim 1.

2. Dependent Claim 2

141) Claim 1 is disclosed by the combination of Whybrew and Strength. *Supra*, paragraphs 90-140. Claim 2 depends from claim 1 and requires, “[t]he camouflage structure of claim 1, wherein the camouflage pattern comprises one or more ink substances printed on the first side and the dark color coating comprises a second ink substance printed on the second side.”

142) Strength discloses a base textile 100 that has the camouflage pattern 110 on the first side 111 that is an ink substance. Strength states: “[t]he camouflage pattern 110 can be place[d] onto the first side 111 of the base textile 100 by printing..., jet printing, screen printing or any other suitable method of applying a design to a

textile.” Ex.1003; 1:59-60. In my opinion, a PHOSITA understands that the various printing processes (discussed above) described in Strength may use an ink, and that the ink employed will reflect the designed camouflage pattern.

143) Regarding the second side 112 of the base textile 100, claim 1 of Strength recites that the dark coating is on the second side. Ex.1003; claim 1:4-6. Strength explicitly states that the dark coating 200 is applied via hot melt coating, extrusion coating, film laminating, “or other similar methods.” Ex.1003; 2:26-29. As Strength discloses printing as well for the camouflage pattern 110 on the first side 111, it is my opinion that a PHOSTA would appreciate that “other similar methods” contemplates printing the dark color on the second side 112 of the base textile 100. Thus, Strength discloses claim 2.

144) If it is determined that Strength does not teach the feature of claim 2, Whybrew discloses that its camouflaged pattern 37 can be printed on both sides. Ex.1002; 4:46-50. As Whybrew and Strength can be combined as discussed above, it is my opinion that a PHOSITA based on the teachings of Whybrew would appreciate that coating 200 on the second side 112 of the base textile 100 can be applied via printing. Thus, the combination of the cited references teaches claim 2.

3. Dependent Claim 3

145) Claim 1 is taught by the combination of Whybrew and Strength. Supra, paragraphs 90-140. Claim 3 depends from claim 1 and requires, “[t]he camouflage

structure of claim 1, wherein the camouflage pattern is based on an exterior environment where the camouflage structure will be positioned to make the camouflage structure blend in with the exterior environment.”

146) Whybrew teaches that “In providing such an apparatus it is: a principal object to provide a blind that blends into the environmental setting in which it is used.”

Ex.1002; 3:35-36. In describing the body 20 having the camouflage pattern 37 that surrounds the frame 40, Whybrew states: [t]he camouflage pattern 37 is formed by known means and may be formed by dyed splotches of green and brown and black and tan, or other colors, to make the blind difficult to distinguish from the surrounding environment.” Ex.1002; 4:50-53. Thus, in my opinion Whybrew discloses claim 3.

147) In addition, Strength discloses that the camouflage pattern 10 on the first side 111 of the mesh material can resemble tree trunks, branches, etc. or constitute regions or patterns of differing colors and/or shades so as to have a tendency to blend with the surrounding environment. Ex.1003; 1:42-46. Therefore, it is my opinion that Strength also teaches the feature of claim 3.

4. Dependent Claim 4

148) Claim 1 is disclosed by the combination of Whybrew and Strength. *Supra*, paragraphs 90-140. Claim 4 depends from claim 1 and requires, “[t]he camouflage

structure of claim 1, wherein the dark color coating comprises a single color coating.” Ex.1001, claim 4.

149) Strength discloses a base textile 100 having a dark coating 200 on a second side 112. Ex.1002; Fig. 1. While Strength does not explicitly discuss whether a single color or multiple colors define the dark coating 200, the reference does state that the coating 200 is a material “with a pigment. Pigments can include materials such as carbon black, iron oxide, or other light blocking pigments.” Ex.1002; 2:34-37. Further, Strength teaches that the dark coating 200 may be opaque. See the discussion regarding Fig 2 in Strength. Ex.1002; 11-12. Therefore it is my opinion that a PHOSITA would understand that with the coating placing the black pigment in the material, a single black color on the second side 112 of the base textile 100 is contemplated by Strength. Thus, Strength teaches claim 4.

5. Dependent Claim 5

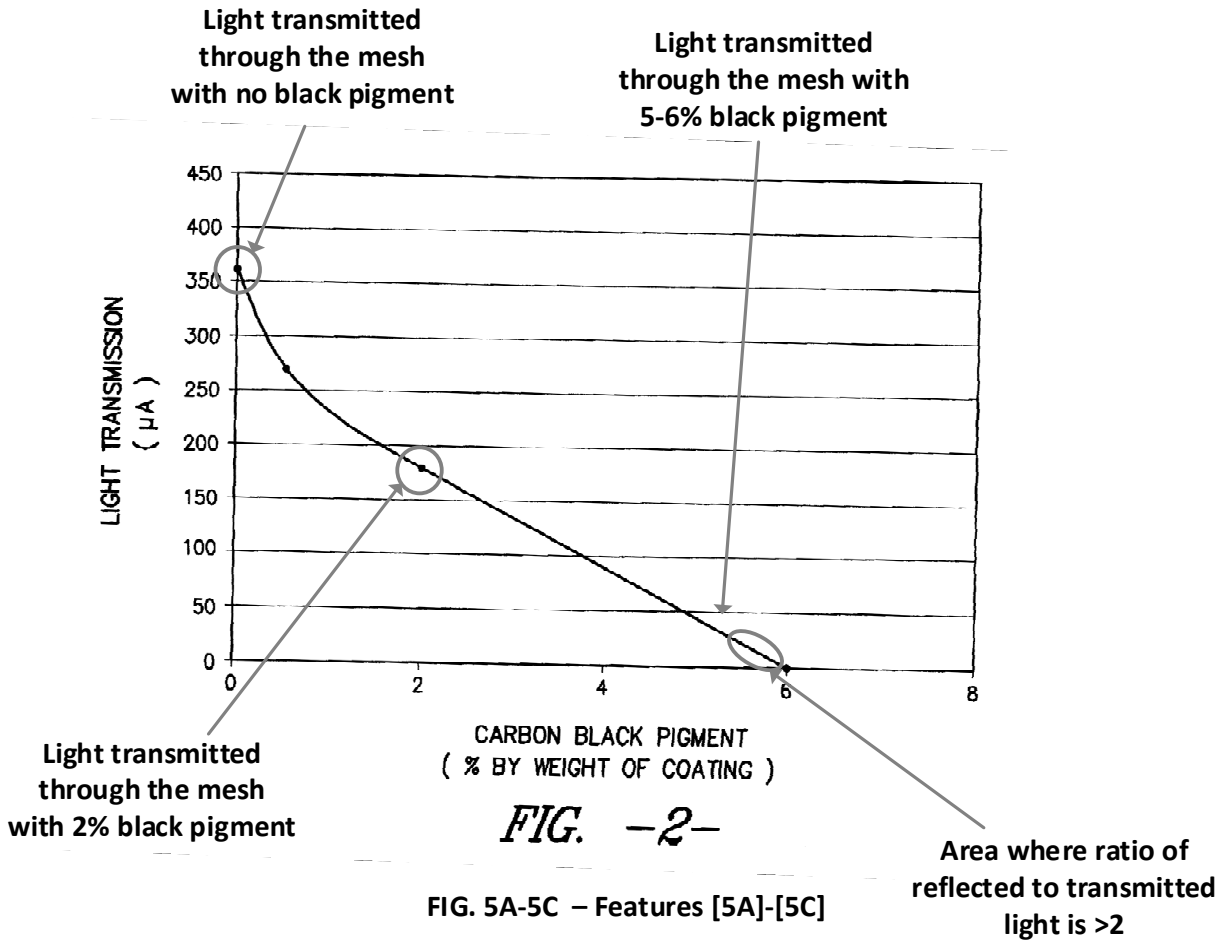
150) Claim 1 is disclosed by the combination of Whybrew and Strength. *Supra*, paragraphs 90-140. Claim 5 depends from claim 1 and requires [5A], “the mesh material is partially transmissive such that a portion of incident radiation from an exterior of the camouflage structure is reflected off the camouflage pattern back into the exterior.”

151) Fig. 2 of Strength (provided below as Fig. 5A-5C – Features [5A]-[5C]) is a graph illustrating an amount of light transmission through the base textile 100 along the

Y-axis for varying amounts of carbon black pigment in the coating 200 on the second side 112 of the base textile 100 along the X-axis. The graph shows the amount of light transmission from the first side 111 to the second side 112.

Ex.1002; 2:4-12. To construct Fig. 2 of Strength, data were collected with a light source located on the first side 111 of the base textile 100, and a sensor located on the second side 112 of the base textile 100 to measure the amount of light transmission through the textile from the exterior to the interior. Ex.1003; 2:4-10.

As seen in the data presented in Fig. 2, for varying amounts of black pigment in the coating (variation along the X-axis), varying amounts of light is transmitted through the base textile 100. Ex.1003; Fig. 2.



152) The graph does not present data regarding an amount of light reflected off the first side 111 of the base textile 100 having the camouflage pattern 110. However, because of the conservation laws of physics, a PHOSITA knows that whatever light is not transmitted through the base textile is either: (1) absorbed by the base textile 100, or (2) reflected off the first side 111 of the base textile 100. Strength teaches that the light source on the first side 111 of the base textile 100 induces a sensor photocurrent reading of 380 μA . Ex.1003; Fig. 2; 2:4-5. When a dark coating 200 having a black pigment in the amount of 2% by weight was tested, the sensor on the second side 111 of the base textile measured a sensor photocurrent

reading of 180 μ A that transmitted through the base textile. Thus, an amount of light that was either reflected off the first side 111 or absorbed by the base textile 110 is 200 μ A (380-200). While the reference does not quantify the amounts of reflected or absorbed light, a PHOSITA knows that inherently a portion is absorbed by, and a portion is reflected off, the camouflage pattern 110. Thus, it is my opinion that Strength teaches feature [5A] that the mesh material is partially transmissive such that a portion of incident radiation from an exterior of the camouflage structure is reflected off the camouflage pattern back into the exterior.

153) Feature [5B] recites: “a portion of incident radiation from an interior of the camouflage structure is transmitted through the mesh material to the exterior.” As seen in Fig. 2, for varying amounts of black pigment in the coating (variation along the X-axis), varying amounts of light is transmitted through the base textile 100. Ex.1003; Fig. 2. Thus, Strength discloses in several of the examples transmission of light through the base textile 100, and while the measurements are taken in the direction from the exterior to the interior (that is from the first side 111 to the second side 112), a PHOSITA appreciates that light transmission would occur through the base textile in the opposite direction, i.e., from the interior to the exterior, as well (that is, from the second side 112 to the first side 111). Thus, consequent to Fig. 2, it is my opinion that Strength discloses a portion of incident

radiation from an interior of the camouflage structure is transmitted through the mesh material to the exterior. Thus, Strength teaches [5B].

154) Element [5C] recites, “wherein a ratio of an intensity of the reflected portion to an intensity of the transmitted portion is above a threshold value such that an exterior of the camouflage structure is visible through the camouflage material from the interior of the camouflage structure and the interior of the camouflage structure is not visible through the mesh material from the exterior of the camouflage structure; and wherein the threshold value is 2.”

155) Strength states that the sensor reading at the test light source produces a photocurrent of 380 μA . Ex.1003; 2:4-6. When no black pigment was added to the coating 200, the measure of light transmission on the second side 112 was 360 μA . Ex.1003; 3:31-4:5. This means that with no dark coating the portion of the exterior incident light that did not transmit through the base textile to the interior was 20 μA (i.e., 380 μA – 360 μA). As mentioned above, it is unknown from the data provided in Strength what amount of the 20 μA of non-transmitted light constituted reflected light and what amount constituted absorbed light, but a PHOSITA knows that the value of the reflected light is some value between 0-20 μA , with the remaining amount being the absorbed light. It is also appreciated by a PHOSITA that an amount of reflected light at the first side 111 of the base textile does not change appreciably as the coating 200 on the second side 112 becomes

darker. Instead, as the coating 200 gets more dark, more light gets absorbed by the coating 200, and the amount of reflected light at the first side 111 stays about the same, in the amount between 0-20 μ A, as just discussed. Thus, when the light transmission shown in the graph of Strength reaches a value in the range of about 0-10 μ A the threshold value of 2 is reached. For example, if the reflected light was hypothetically known to be 10 μ A, a black pigment percentage value that produces a light transmission of 5 μ A results in a threshold value of 2 (10/5) being reached. As the claim recites that the ratio is above this threshold, then any black pigment value greater than this amount will satisfy the claim feature. Therefore it is my opinion that a PHOSITA can deduce readily from the data in Figs.5A-5C – Features [5A]-[5C] of Strength that a percentage of black pigment in the range of about 5.8-6% in the coating 200 results in a base textile 100 that reads on feature [5C].

156) Thus, Strength teaches all the elements ([5A]-[5C]) of claim 5.

6. Dependent Claim 8

157) Claim 1 is taught by the combination of Whybrew and Strength. Paragraphs 90-140. Claim 8 depends from claim 1 and requires, “wherein the mesh material is made of polyester material and an acrylic fiber.” Initially, it is unclear exactly what the ’535 Patent means when it states that the mesh material is “made of a polyester material and an acrylic fiber,” as that recitation as stated does not make

any sense to a PHOSITA. Thus, I am attempting to construe the claim in a manner that makes the most sense. Strength discloses that the base textile 100 can be an ethylene methyl acrylate. Ex.1003. As is well known in the art, ethylene methyl acrylate is a copolymer made from ethylene and methyl acrylate monomers. It belongs to the broader family of ethylene acrylic acid (EAA) copolymers. Acrylate is any salt or ester of acrylic acid, and acrylic acids can be polymerized to form acrylic resins. Ex.1008. Thus, it is my opinion that a PHOSITA understands that Strength discloses a mesh material that is a polyester material that contains acrylic.

158) Thus, Strength discloses the features of claim 8.

7. Dependent Claim 9

159) Claim 1 is taught by the combination of Whybrew and Strength. Paragraphs 90-140. Claim 9 depends from claim 1 and requires, “wherein the mesh material is a vinyl-coated polyester material.”

160) Strength teaches that “Thermoplastic materials that can be used in the present invention include ethylene methyl acrylate, polypropylene, polyethylene, polyesters, or the like.” Polyvinyl chloride (PVC) was a common thermoplastic coating often used on polyester at the time of the ‘535 patent (and still is) [Ex.1010, p. 138], a fact that the PHOSITA would know.

161) Thus, in my opinion Strength teaches all the features of claim 9.

8. Dependent Claim 10

162) Claim 1 is taught by the combination of Whybrew and Strength. *Supra*, paragraphs 90-140. Claim 10 depends from claim 1 and requires, “wherein the mesh material is formed by weaving yarn material.” Strength states that “the base textile can be woven, knit, nonwoven, or the like. The base textile 100 can be formed of monofilament, multifilament, and/or staple yarns. Additionally, the yarns forming the base textile can be textured yarns.” Ex.1003; 1:49-53. Thus, Strength states that the base textile 100 to be used for the camouflaged mesh material can be a woven yarn material, and thus discloses claim 10.

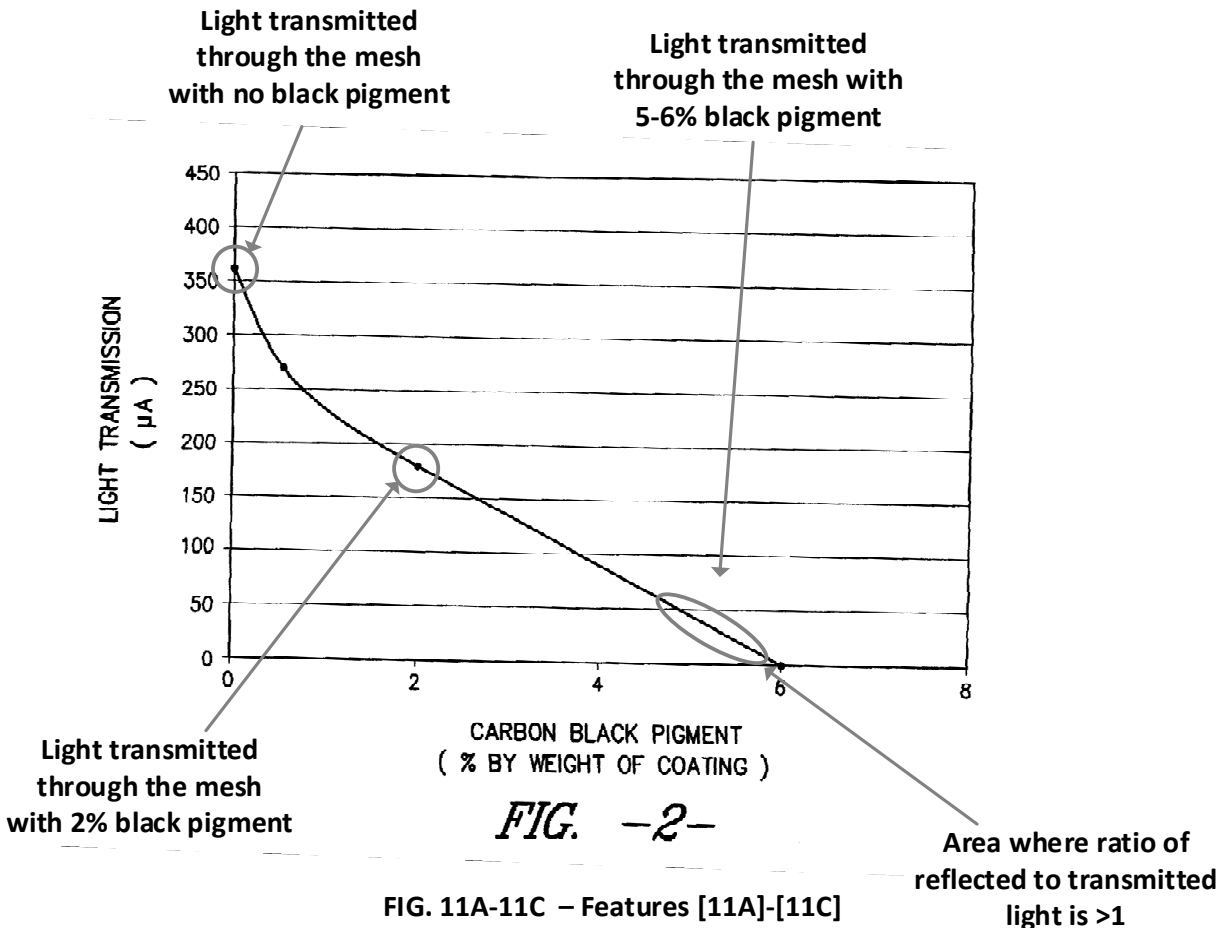
9. Dependent Claim 11

163) Claim 1 is taught by the combination of Whybrew and Strength. *Supra*, paragraphs 90-140. Claim 11 depends from claim 1 and requires [11A], “the mesh material is partially transmissive such that a portion of incident radiation from an exterior of the camouflage structure is reflected off the camouflage pattern back into the exterior.”

164) Fig. 2 of Strength (provided below as Fig. 11A-11C – Features [11A]-[11C]) is a graph illustrating an amount of light transmission through the base textile 100 along the Y-axis for varying amounts of carbon black pigment in the coating 200 on the second side 112 of the base textile 100 along the X-axis. The graph shows

the amount of light transmission from the first side 111 to the second side 112.

Ex.1002; 2:4-12.



165) The graph does not present data for the amount of light reflected off the first side 111 of the base textile 100 having the camouflage pattern 110, but, because of the conservation laws of physics, a PHOSITA knows that whatever light is not transmitted through the base textile is either: (1) absorbed by the base textile 100, or (2) reflected off the first side 111 of the base textile 100. Strength teaches that the light source on the first side 111 of the base textile 100 provides a sensor photocurrent reading of 380 μA. Ex.1003; Fig. 2; 2:4-5. When a dark coating 200

having a black pigment in the amount of 2% by weight was tested, the sensor on the second side 111 of the base textile measured an amount of 180 μ A that transmitted through the base textile. Thus, an amount of light that was either reflected off the first side 111 or absorbed by the camouflage material 110 is 200 μ A. While the reference does not quantify the relative amounts of reflected or absorbed light that total the 200 μ A, a PHOSITA knows that inherently a portion is reflected off the camouflage pattern 110 and a portion is absorbed by the camouflage pattern 110. Thus, it is my opinion that Strength teaches feature [11A], that the mesh material is partially transmissive such that a portion of incident radiation from an exterior of the camouflage structure is reflected off the camouflage pattern back into the exterior.

166) Feature [11B] recites: “a portion of incident radiation from an interior of the camouflage structure is transmitted through the mesh material to the exterior.” In Fig. 2 of Strength, data is collected from a light source located on the first side 111 of the base textile 100, and a sensor is placed on the second side 112 of the base textile 100 to measure an amount of light transmission through the textile from the exterior to the interior. Ex.1003; 2:4-10. As seen in the data collected in Fig. 2, for varying amounts of black pigment in the coating (variation along the X-axis), varying amounts of light is transmitted through the base textile 100. Ex.1003; Fig. 2. Thus, Strength discloses in several of the examples transmission of light

through the base textile 100, and while the measurements are taken in the direction from the exterior to the interior (that is from the first side 111 to the second side 112), a PHOSITA appreciates that light transmission occurs through the base textile in the opposite direction from the interior to the exterior as well (that is, from the second side 112 to the first side 111). Thus, consequent to Fig. 2, it is my opinion that Strength discloses a portion of incident radiation from an interior of the camouflage structure is transmitted through the mesh material to the exterior.

167) Thus, Strength teaches [11B].

168) Element [11C] recites, “wherein a ratio of an intensity of the reflected portion to an intensity of the transmitted portion is above a threshold value such that an exterior of the camouflage structure is visible through the camouflage material from the interior of the camouflage structure and the interior of the camouflage structure is not visible through the mesh material from the exterior of the camouflage structure; and wherein the threshold value is 1.”

169) Strength states that the sensor reading at the test light source produces a photocurrent of 380 μA . Ex.1003; 2:4-6. When no black pigment was added to the coating 200, the measure of light transmission on the second side 112 was 360 μA . Ex.1003; 3:31-4:5. This means that with no dark coating the portion of light that did not transmit through the base textile was 20 μA (i.e., 380 μA – 360 μA). As indicated supra, it is unknown from the data provided in Strength what amount

of the 20 μA worth of non-transmitted light constituted reflected light and what amount constituted absorbed light, but a PHOSITA knows that the value of the reflected light is some value between 0-20 μA , with the remaining amount being the absorbed light. It is also appreciated by a PHOSITA that an amount of reflected light at the first side 111 of the base textile does not change appreciably as the coating 200 on the second side 112 becomes darker. Instead, as the coating 200 gets more dark, more light gets absorbed by the coating 200, but the amount of reflected light at the first side 111 stays about the same, at an amount between 0-20 μA . Thus, when the light transmission shown in the graph of Strength reaches a value in the range of about 0-20 μA the threshold value of 1 is reached. For example, if the reflected light was hypothetically known to be 10 μA , a black pigment percentage value that produces a light transmission of 10 μA results in a threshold value of 1 (10/10) being reached. As the claim recites that the ratio be above this threshold, then any black pigment value greater than this amount will satisfy the claim feature. Therefore, it is my opinion that a PHOSITA can deduce readily from the data in Figs.11A-11C – Features [11A]-[11C] of Strength that a percentage of black pigment in the range of about 5.4-6% in the coating 200 results in a base textile 100 that reads on feature [11C].

170) Thus, Strength teaches all the elements ([11A]-[11C]) of claim 11.

10. Dependent Claim 12

171) Claim 1 is taught by the combination of Whybrew and Strength. Supra, paragraphs 90-140. Claim 12 depends from claim 1 and requires, “wherein the mesh material is produced by; printing the camouflage pattern on the first side of the mesh material using a first ink, and printing the dark color coating on the second side of the mesh material using a second ink.”

172) Strength discloses a base textile 100 that has the camouflage pattern 110 on the first side 111 that is an ink substance. Strength states: “[t]he camouflage pattern 110 can be place[d] onto the first side 111 of the base textile 100 by printing..., jet printing, screen printing or any other suitable method of applying a design to a textile.” Ex.1003; 1:59-60. A PHOSITA understands that the various printing processes described in Strength may use an ink, and that the ink employed will reflect the designed camouflage pattern. See discussion above regarding textile printing. Thus, the first portion of claim 12 is disclosed by Strength.

173) Regarding the second side 112 of the base textile 100, claim 1 of Strength recites that the dark coating is disposed on the second side. Ex.1003; claim 1:4-6. Strength explicitly states that in one example the dark coating 200 is applied via hot melt coating, extrusion coating, laminating, “or other similar methods.” Ex.1003; 2:26-29. See discussion above regarding textile coating. As Strength discloses printing as well for the camouflage pattern 110 on the first side 111, a

PHOSITA would appreciate that “other similar methods” contemplates printing the dark color on the second side 112 of the base textile 100, and further that printing may employ ink. Further, as the dark coating 200 is different from the camouflage pattern 110, a PHOSITA would appreciate that the printing of the dark coating 200 would be performed with a second ink. See discussion above regarding textile printing. Thus, Strength discloses the features of claim 12.

174) If it is determined that Strength does not teach the feature of claim 12, Whybrew discloses that its camouflaged pattern 37 can be printed on both sides. Ex.1002; 4:46-50. As Whybrew and Strength can be combined as discussed above, a PHOSITA based on the teachings of Whybrew would appreciate that coating 200 on the second side 112 of the base textile 100 can be applied via printing. Thus, the combination of the cited references teaches claim 12.

11. Dependent Claim 13

175) Claim 1 is taught by the combination of Whybrew and Strength. Supra, paragraphs 90-140. Claim 13 depends from claim 1 and requires [13A], “wherein the second side of the one or more panels of the mesh material defines an interior of the camouflage structure and the first side of the one or more panels of the mesh material defines an exterior of the camouflage structure.”

176) Strength discloses a camouflage material 10 composed of a base textile 100 having a camouflage pattern 110 on a first side or surface 111, and a coating 200

on a second side 112 of the base textile 100. Ex.1003; 1:37-47. As highlighted above, the mesh base textile 100 of Strength can be substituted for the mesh fabric window 24 of Whybrew for the reasons set forth in paragraphs 120-126. Therefore a PHOSITA knows that the first side 111 having the camouflage pattern 110 is placed on the outside to define an exterior of the camouflage structure, as clearly shown in the Fig. 1 of Whybrew below, annotated as Fig. 13A,B – Features [13A-[13B].

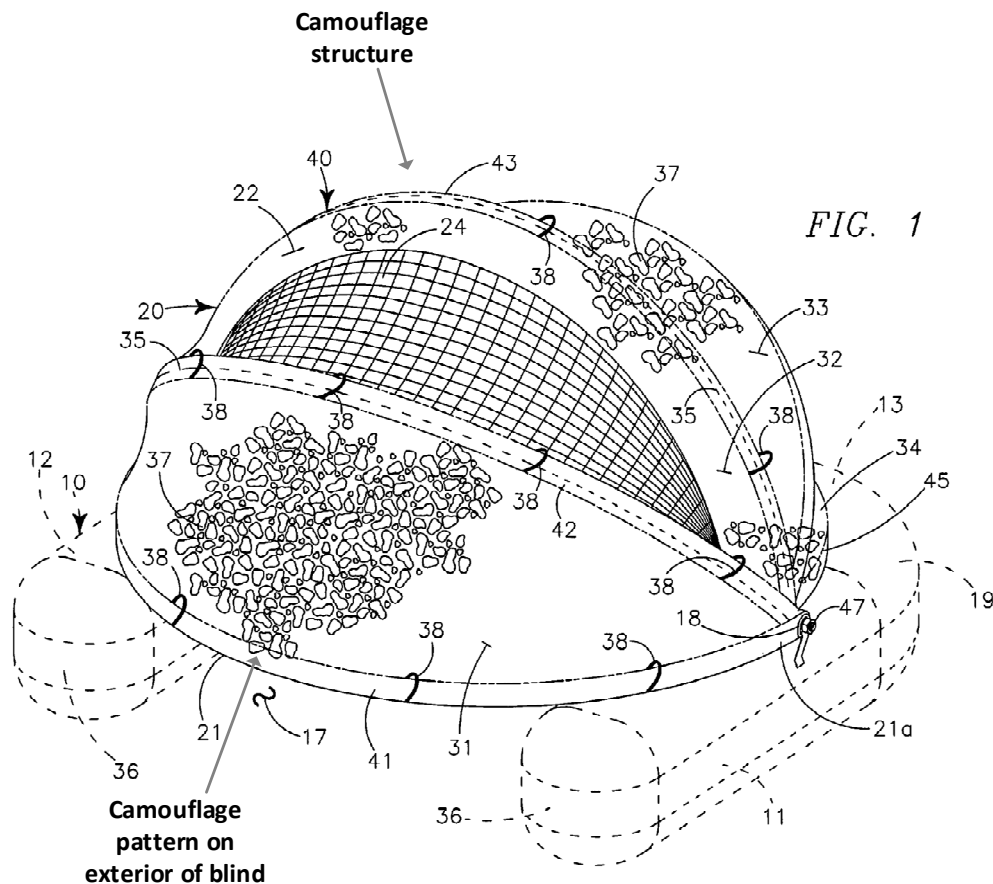


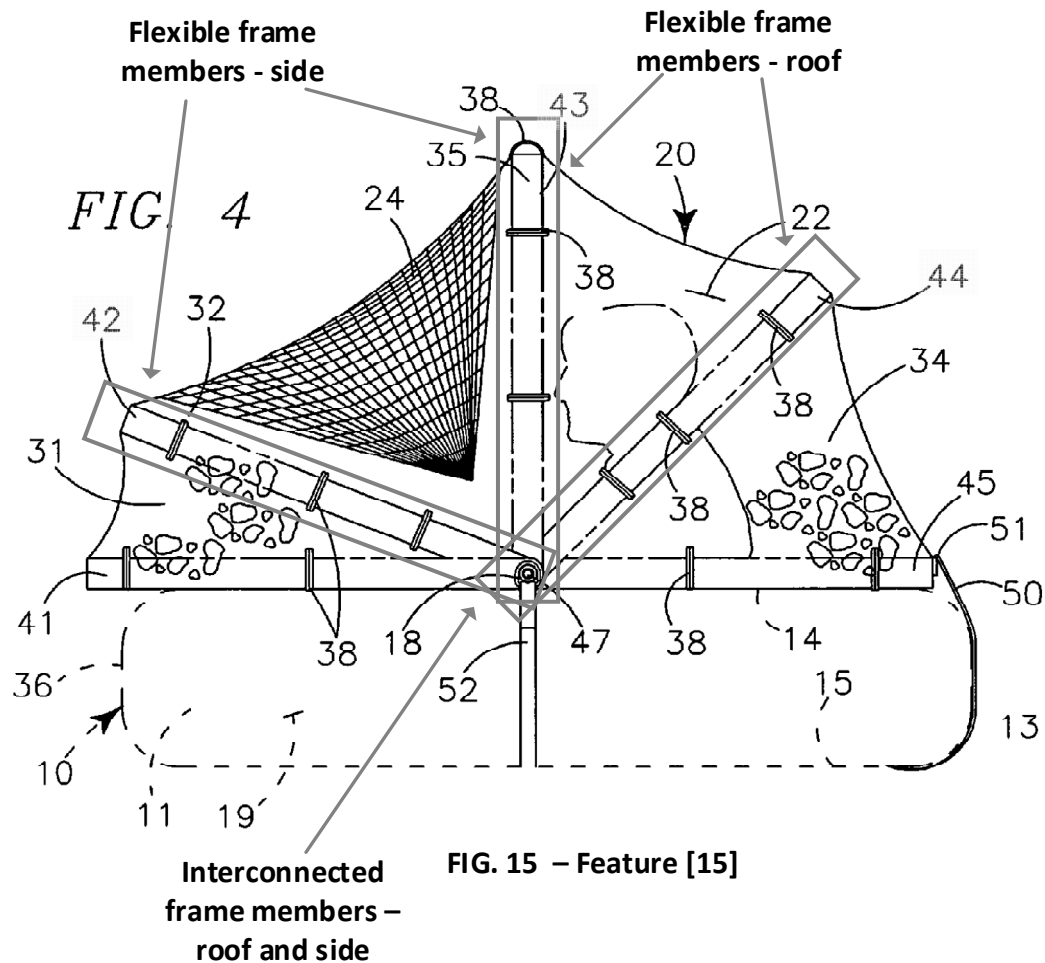
FIG. 13A,B – Features [13A-[13B]

177) Further, Strength discloses the dark coating 200 on the second, opposite side 112 of the base textile 100. Ex.1002; 1:45-47. As the substituted mesh in the Whybrew hunting blind structure, the dark coating on the mesh defines an interior of the camouflage structure to improve the light differential between the interior and the exterior of the blind, thus improving the “one-way” viewing feature. Ex.1002; 5:16-22. Thus, Strength teaches feature [13A].

178) Element [13B] requires, “wherein the plurality of frame members are configured to form an enclosure that surrounds the interior.” As shown in Fig. 13A,B – Features [13A]-[13B], Whybrew shows a frame 40 composed of flexible members or stays 41, 42, 42, 43, 44, 45. The flexible body 20 of mesh fabric window 24 and non-mesh material in sections 31, 32, 33, 34 surrounds the frame members and defines the interior of the hunting blind, and thus the frame members 41-45 surround the interior. Thus, it is my opinion that Whybrew teaches feature [13B], and consequently the combination of Whybrew and Strength teach claim 13.

12. Dependent Claim 15

179) Claim 1 is taught by the combination of Whybrew and Strength. Supra, paragraphs 90-140. Claim 15 depends from claim 1 and requires, “wherein flexible frame members along the side of the camouflage structure are interconnected with the one or more panels of non-mesh material along the roof of the camouflage structure.”

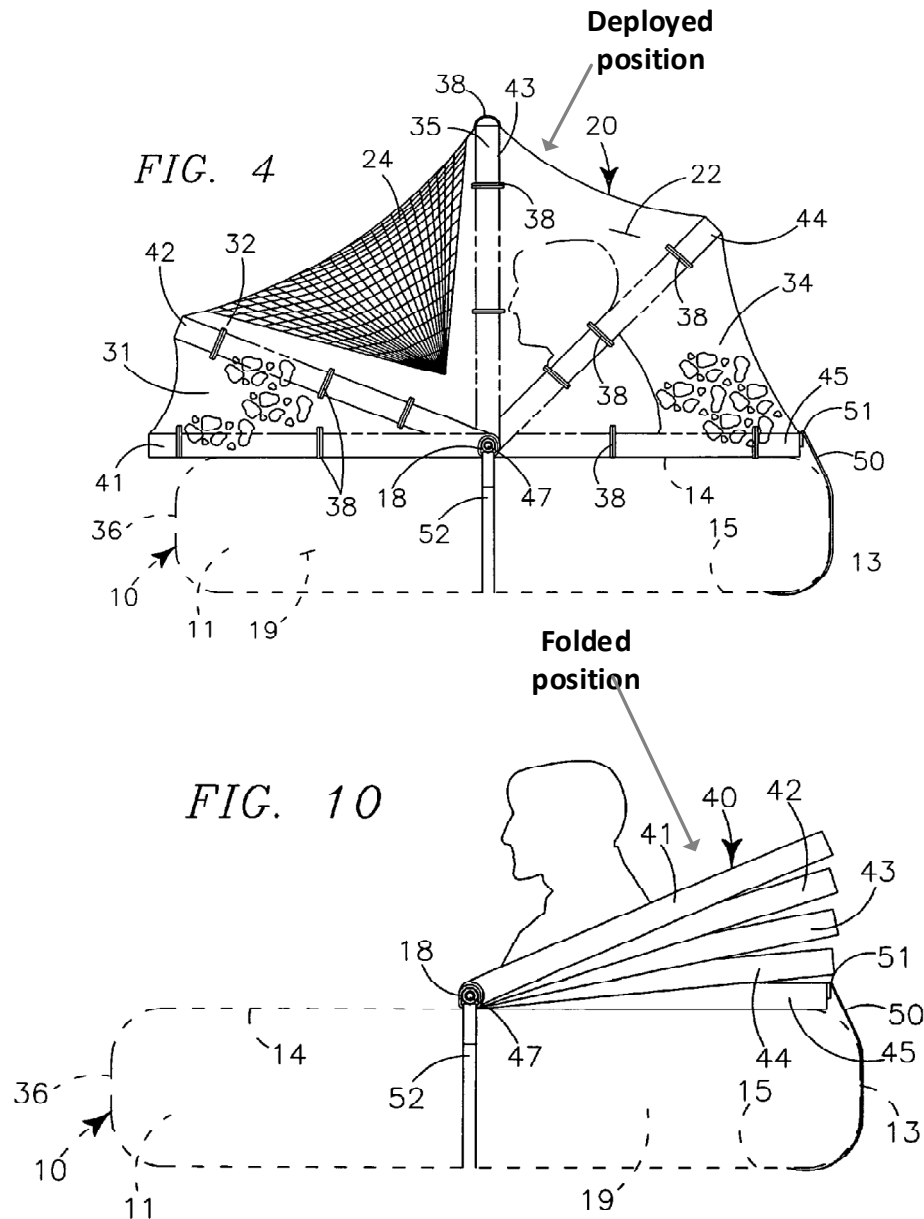


180) As shown above in Fig. 15 – Feature [15], the hunting blind of Whybrew discloses a frame 40 composed of flexible frame members 41, 42, 43, 44, 45, also called stays. The frame members 42, 43 that define a side of the hunting blind (supporting the fabric mesh window 24) and the frame members 43, 44 that define a roof of the hunting blind (as seen in the occupant residing under the section 33 of the flexible body 20 (non-mesh material)) are interconnected at each end with a pivot axle bolt 47. Alternatively, Whybrew discloses that such frame members may be interconnected with a bracket. Ex.1002; 6:7-28.

181) Thus, it is my opinion that Whybrew teaches claim 15. Alternatively, both Ransom, Ex.1004, and Hazinski, Ex.1005, clearly show in the figures and their corresponding text, frame members that are interconnected with the side panels or roof panels, and their combination with Whybrew is proper for the rationale provided herein.

13. Dependent Claim 16

182) Claim 15, as it depends upon claim 1, is taught by the combination of Whybrew and Strength. Supra, paragraphs 90-140. Claim 16 depends from claim 15 and requires, “wherein the pop-up frame is movable from a folded position to a deployed position.” As shown in Fig. 16 – Feature [16] provided below, Figs. 4 and 10 of Whybrew illustrate the hunting blind in the deployed position, wherein an occupant resides in the interior of the hunting blind, and the flexible members 41, 42, 43, 44, 45 have been rotated about the pivot axle 47 to “close” the blind and thereby hide the occupant from game that are exterior to the blind.



183) In addition, Fig.16 – Feature [16] shows Fig. 10 of Whybrew, where the flexible members 41, 42, 43, 44, 45 have been rotated about the pivot axle bolt 47 into a folded position that allows a user to easily move the hunting blind or further disassemble the blind. Ex.1002; Figs.4, 8, 10; 3:26,40-42; 4:7-9,19-22; 8:65-9:5.

184) Thus, it is my opinion that Whybrew teaches claim 16.

14. Dependent Claim 17

185) Claim 16 is taught by Whybrew. Supra, paragraphs 182-184. Claim 17 depends from claim 16 and requires, “wherein the one or more panels of mesh material are secured between the at least two spaced apart frame members along the side of the camouflage structure in the folded position such that when the frame is moved from the folded position to the deployed position an exterior of the camouflage structure is visible through the one or more panels of mesh material from an interior of the camouflage structure yet the interior of the camouflage structure is not visible through the one or more panels of mesh material from the exterior of the camouflage structure.”

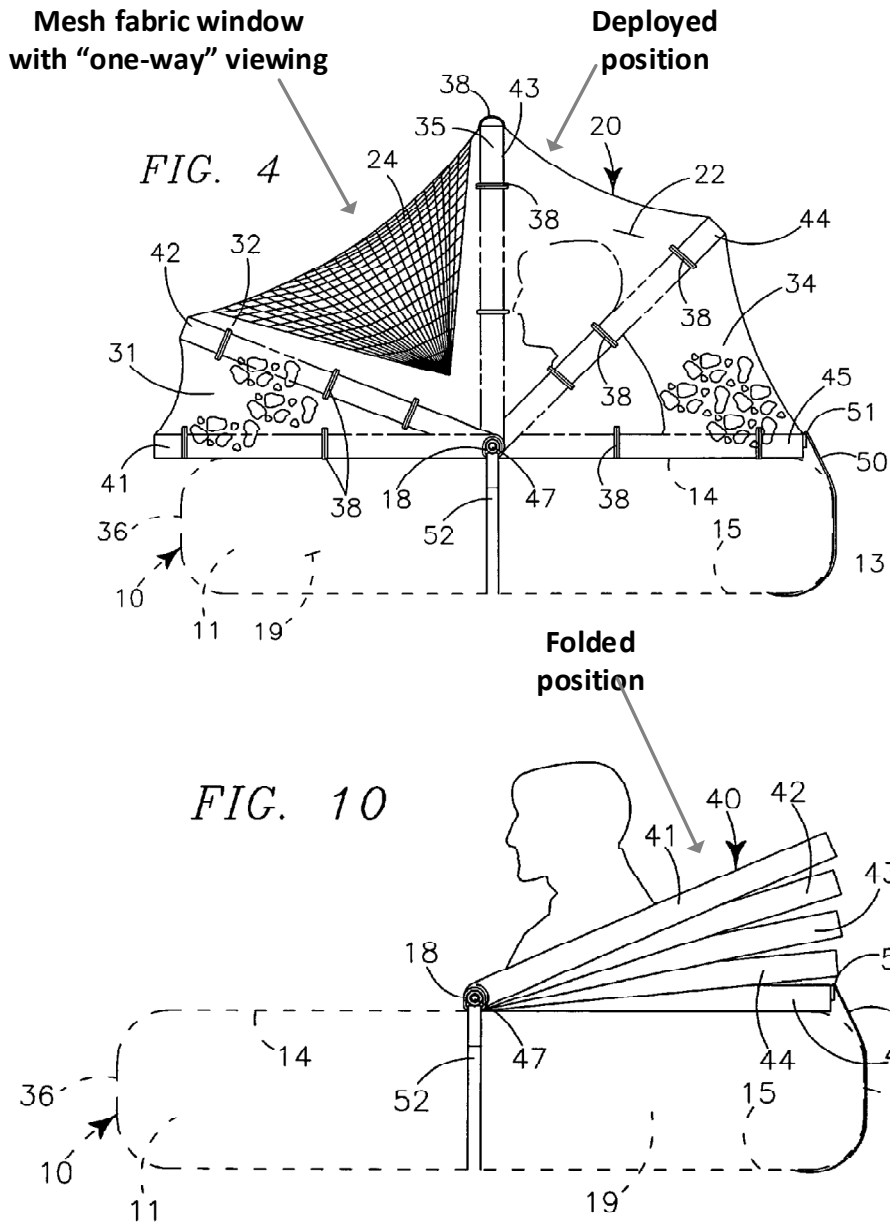


FIG. 17 – Feature [17]

186) As shown in Fig. 17 – Feature [17] above, Whybrew shows in Fig. 17 a hunting blind in a retracted or folded position. As described by Whybrew, the flexible body 20 with the frame 40 (of the flexible members 41, 42, 43, 44) move upwardly and rearwardly to retract or fold the blind. Ex.1002; 9:15-17. To move from the retracted or folded position to the deployed position, Whybrew states that a user

may sit in the blind and extend the flexible body 20 and frame 40 forwardly so that the flexible members 41-44 and the flexible body 20 roll upwardly and forwardly into a hemispherical shape, as the flexible body 20 is secured by the frame members 41-45, as shown in the deployed position of Fig. 17 – Feature [17].

187) As shown in the deployed position of Fig. 4 of the figure, an occupant of the blind can readily see the exterior through the mesh fabric window 24, while concurrently the interior of the structure is not visible through the mesh fabric window 24 because of the light differential facilitating the “one-way” viewing capability. Ex.102; 5:12-26.

188) Thus, it is my opinion that Whybrew teaches claim 17.

15. Dependent Claim 18

189) Claim 1 is taught by the combination of Whybrew and Strength. Supra, paragraphs 90-140. Claim 18 depends from claim 1 and requires, “wherein the frame members have a variation in the spacing between the at least two spaced apart frame members along the side of the camouflage structure.”

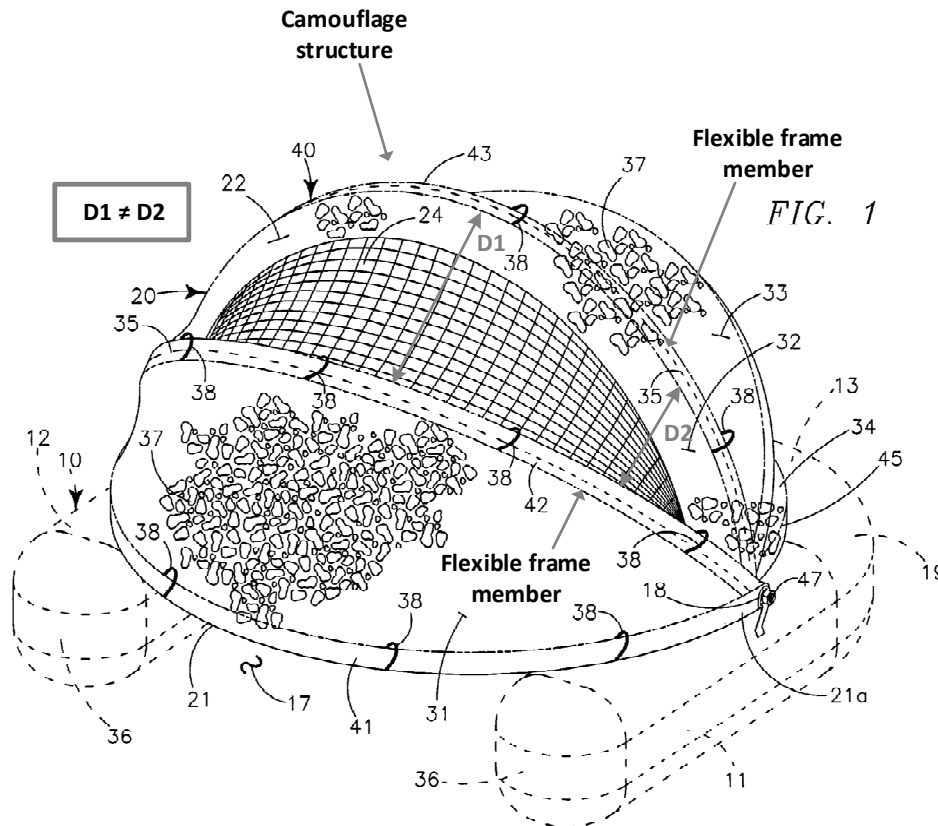


FIG. 18 – Feature [18]

190) Fig. 18 – Feature [18] provided above shows flexible frame members 42, 43 with the fabric mesh window 24 extending therebetween. In the deployed position, such flexible frame members 42, 43 have a variation in their spacing from one another along a side of the structure. That is, along the side, at different points along the frame members 42, 43, the frame members are spaced apart in differing amounts, D1 and D2, wherein $D1 \neq D2$.

191) Therefore, it is my opinion that Whybrew discloses frame members having a variation in the spacing between the at least two spaced apart frame members along the side of the camouflage structure. Thus, Whybrew teaches claim 18.

B. Ground B: Obviousness of claims 6-7 and 19 over Whybrew in view of Strength and Ransom

1. Dependent Claim 6

192) Claim 1 is taught by the combination of Whybrew and Strength. Supra, paragraphs 90-140. Claim 6 depends from claim 1 and requires, “wherein a first side of the camouflage structure includes a window that can be opened to provide a shooting position upon the approach of prey from the first side.”

193) Neither Whybrew nor Strength appear to disclose a window along the side of the camouflage structure. However, this feature was well known by a PHOSITA at the time of the alleged invention of the '535 Patent. For example, Ransom, Ex.1004, is directed to a hunting blind structure that has a camouflage pattern along the side panels that include a window that can be opened to provide a shooting position.

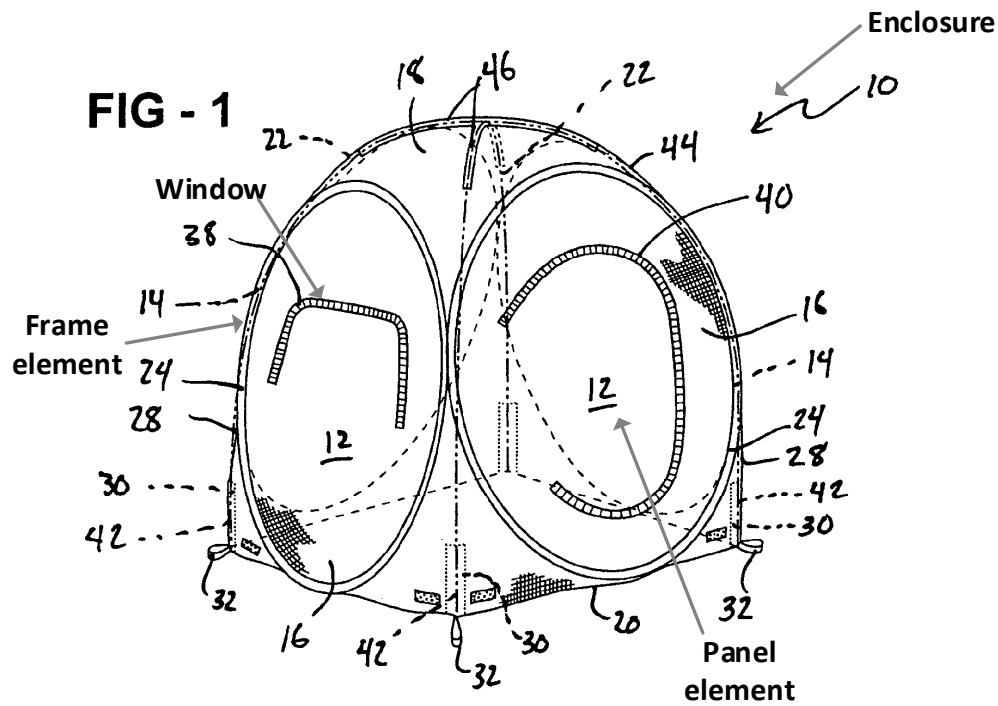


FIG. 6 – Feature [6]

194) The Ransom reference, as shown above in Fig. 6 – Feature [6], discloses an enclosure 10 sized to accommodate one or more occupants. Ex.1004; 2:60-65.

The enclosure is composed of resilient, flexible frame elements 14 with panel elements 12 of material attached to the frame elements 14 to form a portable, pop-up enclosure. Ex.1004; 2:66-3:2. The panel elements 12 join together to form the enclosure 10 and includes a roof portion 18. Ex.1004; 3:2-4. Access ports such as a window 38 may be provided on one or more of the panel elements 12. Ex.1004; 3:64-66. The window 38 may include any type of closure mechanism, such as Velcro, a zipper, or snaps. Ex.1004; 3:66-4:4. The panel elements 12 may contain a camouflage pattern. 3:38-43; 5:9-13.

195) Thus, Ransom clearly shows that hunting blinds such as disclosed enclosure 10 can employ a window on a side panel 12 that can be opened and provide a shooting position for the occupant, and thus it is my opinion that Ransom teaches claim 6.

196) A PHOSITA would be motivated to modify Whybrew in view of Ransom based on the nature of the problem to be solved. Whybrew describes a need to establish a shooting position for an occupant of the hunting blind, and the solution requires the occupant to open the entire blind, Ex.1002; 9:12-19, in order to establish a shooting position, which would necessarily create noise, and a significant visual disturbance that can scare the game away. Ransom similarly wishes to establish a shooting position for an occupant within a hunting blind. By employing a window that constitutes only a portion of the total panel frame 12, a shooting position can be established more easily by engaging the closure mechanism of the window 38 with less noise created and with less visual disturbance than Whybrew's solution. Thus, it is my opinion that a PHOSITA would be motivated to modify the blind of Whybrew by adding the window solution of Ransom.

197) As both Whybrew and Ransom disclose flexible materials for the sides of their blinds, it is my opinion that a PHOSITA would have a reasonable expectation of success in making such a modification. Thus, motivation for the combination is proper.

198) Claim 6 is taught by Ransom, and a combination of Ransom with Whybrew and Strength is appropriate.

2. Dependent Claim 7

199) Claim 6 is taught by the combination of Whybrew, Strength and Ransom. Supra, paragraphs 192-198. Claim 7 depends from claim 6 and requires, “wherein a second side of the camouflage structure includes a window that can be opened to provide a shooting position upon the approach of prey from the second side.”

200) Ransom explicitly states that the window 38 may be provided on “one *or more* panel elements 12,” and thus Ransom teaches a window 38 on a second side of the camouflage structure as claimed. Ex.1004; 3:64-67. This is further buttressed by Fig. 1 of Ransom provided above in Fig. 6 – Feature [6], wherein two sides of the enclosure 10 are illustrated, with a window 38 provided on one side and a door 40 provided on a second side. Based on Ransom stating that “one or more” panel elements 12 may include a window 38, the figure provided contemplates replacing the door 40 with a second window 38. Thus, it is my opinion that Ransom discloses claim 7.

3. Independent Claim 19

201) Each of elements [19A]-[19G] of claim 19 are analogous to elements [1A]-[1G], respectively, and thus the combination of Whybrew and Strength disclose [19A]-

[19G] for at least the same reasons the combination discloses [1A]-[1G] as described in paragraphs 90-140.

202) [19H] is analogous to claim 3. Thus, the combination of Whybrew and Strength disclose [19H] for at least the same reasons the combination discloses claim 3 described in paragraphs 145-147.

203) [19I] is analogous to element [1H]. Thus, the combination of Whybrew and Strength disclose [19I] for at least the same reasons the combination discloses element [1H] described in paragraphs 139-140.

204) [19J] is analogous to claim 6. Thus, the combination of Whybrew and Strength disclose [19J] for at least the same reasons the combination discloses claim 6 described in paragraphs 192-198.

205) [19K] is analogous to claim 16. Thus, the combination of Whybrew and Strength disclose [19K] for at least the same reasons the combination discloses claim 16 described in paragraphs 182-184.

206) [19L] is analogous to claim 18. Thus, the combination of Whybrew and Strength disclose [19L] for at least the same reasons the combination discloses claim 18 described in paragraphs 189-191.

207) Thus, it is my opinion that the combination of Whybrew, Strength and Ransom teaches all of elements [19A]-[19L] of the '535 Patent.

Ground C: Obviousness of claim 14 over Whybrew in view of Strength and Hazinski

1. Dependent Claim 14

208) Claim 13 is taught by the combination of Whybrew and Strength. *Supra*, paragraphs 175-178. Claim 14 depends from claim 13 and requires, “wherein the one or more panels of mesh material provide a 360 degree view of the exterior of the camouflage structure from the interior of the camouflage structure.”

209) Neither Whybrew nor Strength disclose panels of mesh material that provide a 360 degree view of the exterior of the camouflage structure. Hazinski discloses a hunting blind enclosure 10, as shown in Fig. 1, which is provided below as Fig.

14.1 – Feature [14].

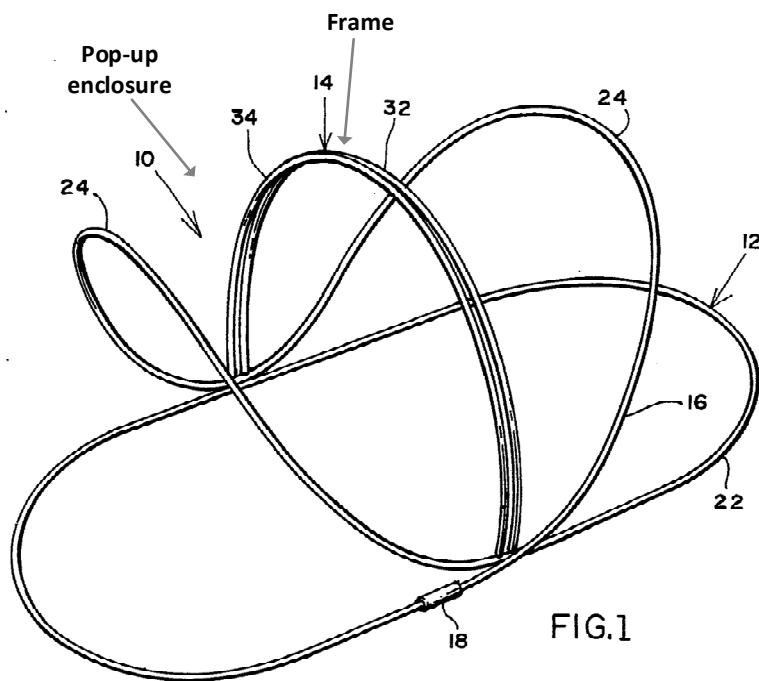


FIG. 14.1 – Feature [14]

210) As illustrated, the enclosure 10 is a pop-up hunting blind structure 10 illustrating the base, self-erecting, single rod, frame 12 together with the additional frame 14 forming the rapidly opening hunting blind portion when the rod frame is fitted to tent fabric. The tent fabric 26 attaches to the frame 14, and according to Hazinski, “[t]he blind fabric 26 may be of a screen or see through type having camouflage coloring. This allows a hunter to have three hundred and sixty degrees of visibility from within the blind 10 and yet provides him with hunting invisibility.”

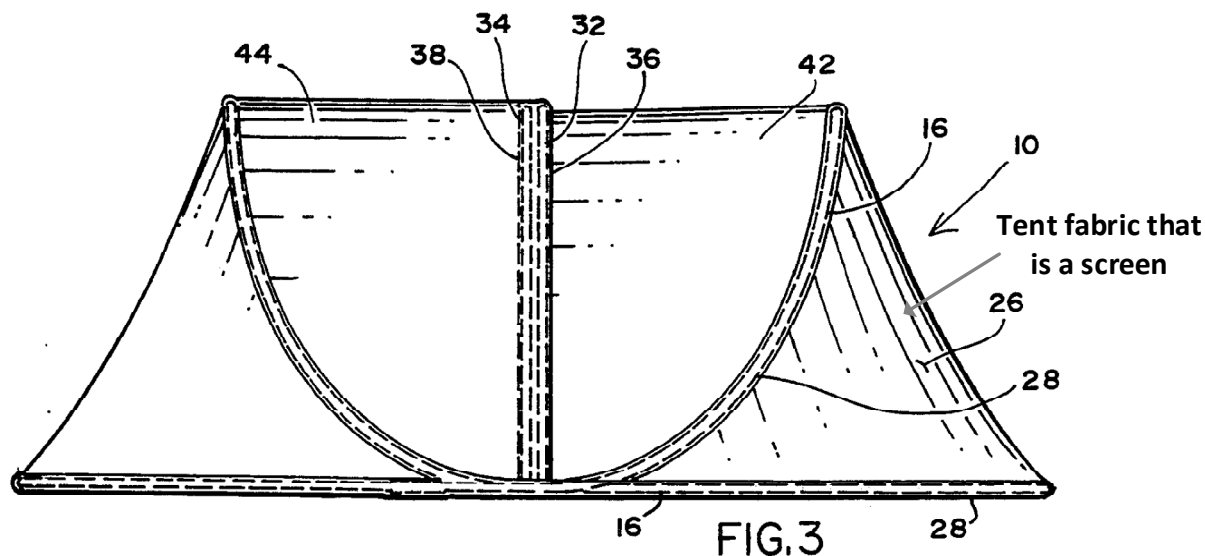


FIG. 14.2 – Feature [14]

211) Therefore, it is my opinion that Hazinski discloses a screen fabric material which is a mesh, and thus discloses one or more panels of mesh material provide a 360 degree view of the exterior of the camouflage structure, and consequently teaches claim 14.

212) A PHOSITA would be motivated to combine Hazinski with Whybrew, as they are both directed to pop-up hunting blinds with a camouflage exterior, that both use a mesh for “one-way” viewing. In my opinion it would have been obvious for a PHOSITA to replace the flexible body 20 of Whybrew with the tent fabric 26 of Hazinski in order to further improve visibility of an occupant within the hunting blind to the exterior as taught in Hazinski.

213) Thus, Hazinski teaches the feature of claim 14, and thus is obvious in view of the combination of Whybrew, Strength and Hazinski.

CONCLUDING STATEMENT

214) In conclusion, as set forth above, based on the combination of prior art reviewed above disclosing all the claim features, *inter partes* review of claims 1-19 should be instituted and the claims cancelled as being obvious by the reviewed prior art references.

215) 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 8, 2023

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

Michael Ellison, Ph.D.

CLAIM LISTING APPENDIX

U.S. Patent No. 9,584,021 - Avrutsky	
Claim Element Designation	Claim Element
Claim 1	
[1A]	A camouflage structure comprising:
[1B]	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; and
[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; and
[1F]	one or more panels of non-mesh material provided along the roof of the camouflage structure and configured to be attached to the at least two spaced apart frame members that are along the roof of the camouflage structure to cover an area between the at least two spaced apart frame members;
[1G]	wherein the one or more panels of the mesh material define an outer surface of the camouflage structure; and
[1H]	wherein the one or more panels of non-mesh material are non-transmissive such that incident radiation from an exterior of the camouflage structure is not transmitted through the non-mesh material.
Claim 2: The camouflage structure of claim 1, wherein the camouflage pattern comprises one or more ink substances printed on the first side and the dark color coating comprises a second ink substance printed on the second side.	

Claim 3: The camouflage structure of claim 1, wherein the camouflage pattern is based on an exterior environment where the camouflage structure will be positioned to make the camouflage structure blend in with the exterior environment.	
Claim 4: The camouflage structure of claim 1, wherein the dark color coating comprises a single color coating.	
Claim 5: The camouflage structure of claim 1, wherein	
[5A]	the mesh material is partially transmissive such that a portion of incident radiation from an exterior of the camouflage structure is reflected off the camouflage pattern back into the exterior,
[5B]	a portion of incident radiation from an interior of the camouflage structure is transmitted through the mesh material to the exterior and
[5C]	wherein a ratio of an intensity of the reflected portion to an intensity of the transmitted portion is above a threshold value such that an exterior of the camouflage structure is visible through the camouflage material from the interior of the camouflage structure and the interior of the camouflage structure is not visible through the mesh material from the exterior of the camouflage structure; and wherein the threshold value is 2.
Claim 6: The camouflage structure of claim 1, wherein a first side of the camouflage structure includes a window that can be opened to provide a shooting position upon the approach of prey from the first side.	
Claim 7: The camouflage structure of claim 6, wherein a second side of the camouflage structure includes a window that can be opened to provide a shooting position upon the approach of prey from the second side.	
Claim 8: The camouflage structure of claim 1, wherein the mesh material is made of polyester material and an acrylic fiber.	
Claim 9: The mesh material of claim 1, wherein the mesh material is a vinyl-coated polyester material.	
Claim 10: The mesh material of claim 1, wherein the mesh material is formed by weaving yarn material.	
Claim 11: The camouflage structure of claim 1, wherein	
[11A]	the mesh material is partially transmissive such that a portion of incident radiation from an exterior of the camouflage structure is reflected off the camouflage pattern back into the exterior,
[11B]	a portion of incident radiation from an interior of the camouflage structure is transmitted through the mesh material to the exterior and

[11C]	wherein a ratio of an intensity of the reflected portion to an intensity of the transmitted portion is above a threshold value such that an exterior of the camouflage structure is visible through the camouflage material from the interior of the camouflage structure and the interior of the camouflage structure is not visible through the mesh material from the exterior of the camouflage structure; and wherein the threshold value is 1.
Claim 12: The camouflage structure of claim 1, wherein the mesh material is produced by; printing the camouflage pattern on the first side of the mesh material using a first ink, and printing the dark color coating on the second side of the mesh material using a second ink.	
Claim 13: The camouflage structure of claim 1,	
[13A]	wherein the second side of the one or more panels of the mesh material defines an interior of the camouflage structure and the first side of the one or more panels of the mesh material defines an exterior of the camouflage structure; and
[13B]	wherein the plurality of frame members are configured to form an enclosure that surrounds the interior.
Claim 14: The camouflage structure of claim 13, wherein the one or more panels of mesh material provide a 360 degree view of the exterior of the camouflage structure from the interior of the camouflage structure.	
Claim 15: The camouflage structure of claim 1, wherein flexible frame members along the side of the camouflage structure are interconnected with the one or more panels of non-mesh material along the roof of the camouflage structure.	
Claim 16: The camouflage structure of claim 15, wherein the pop-up frame is movable from a folded position to a deployed position.	
Claim 17: The camouflage structure of claim 16, wherein the one or more panels of mesh material are secured between the at least two spaced apart frame members along the side of the camouflage structure in the folded position such that when the frame is moved from the folded position to the deployed position an exterior of the camouflage structure is visible through the one or more panels of mesh material from an interior of the camouflage structure yet the interior of the camouflage structure is not visible through the one or more panels of mesh material from the exterior of the camouflage structure.	

Claim 18: The camouflage structure of claim 1, wherein the frame members have a variation in the spacing between the at least two spaced apart frame members along the side of the camouflage structure.	
Claim 19	
[19A]	A camouflage structure comprising:
[19B]	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; and
[19C]	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:
[19D]	a first side with a camouflage pattern; and
[19E]	a second side with a dark color coating, said second side opposite to the first side; and
[19F]	one or more panels of non-mesh material configured to be provided along the roof of the camouflage structure and configured to be attached to the at least two spaced apart frame members that are along the roof of the camouflage structure to cover an area between the at least two spaced apart frame members;
[19G]	wherein the one or more panels of the mesh material define an outer surface of the camouflage structure;
[19H]	wherein the camouflage pattern is based on an exterior environment where the camouflage structure will be positioned to make the camouflage structure blend in with the exterior environment;
[19I]	wherein the one or more panels of non-mesh material are non-transmissive such that incident radiation from an exterior of the camouflage structure is not transmitted through the non-mesh material;
[19J]	wherein the camouflage structure includes a window along the side of the camouflage structure that can be opened to provide a shooting position upon the approach of prey from the side;
[19K]	wherein the pop-up frame is movable from a folded position to a deployed position; and

[19L]	wherein the one or more panels of mesh material are secured between the at least two spaced apart flexible frame members along the side of the camouflage structure in the folded position such that when the frame is moved from the folded position to the deployed position an exterior of the camouflage structure is visible through the one or more panels of mesh material from an interior of the camouflage structure yet the interior of the camouflage structure is not visible through the one or more panels of mesh material from the exterior of the camouflage structure.
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