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(12) **United States Patent**
Sharrah

(10) **Patent No.:** **US 9,488,331 B2**

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(54) **PORTABLE LIGHT WITH SELECTABLE OPTICAL BEAM FORMING ARRANGEMENT**

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(51) **Int. Cl.**

F21V 7/00 (2006.01)
F21L 4/00 (2006.01)
F21V 5/00 (2015.01)
F21V 5/04 (2006.01)
F21V 17/02 (2006.01)
F21Y 101/02 (2006.01)
F21V 14/00 (2006.01)

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(58) **Field of Classification Search**

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F21V 14/006; **F21V 17/002**; **F21V 17/02**;
F21V 21/0885; **F21V 23/0428**; **F21Y**
2101/02; **F21L 4/005**
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See application file for complete search history.

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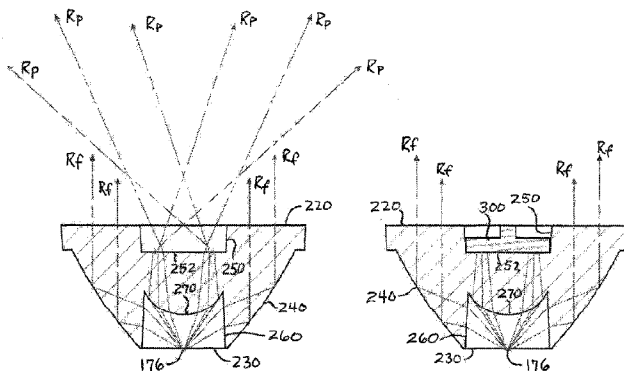
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(57) **ABSTRACT**

A portable light may comprise: a light body and a light source supported thereby and selectively energizable for producing light; a switch for selectively energizing the light source; a TIR optical element disposed in front of the light source for receiving the light produced thereby, and form the light into a collimated beam of light, the TIR optical element having a recess in a forward face thereof; and a selectable beam modification element placeable into and removable from the recess in the forward face of the TIR optical element.

19 Claims, 10 Drawing Sheets



Parhelion, Inc.
EXHIBIT
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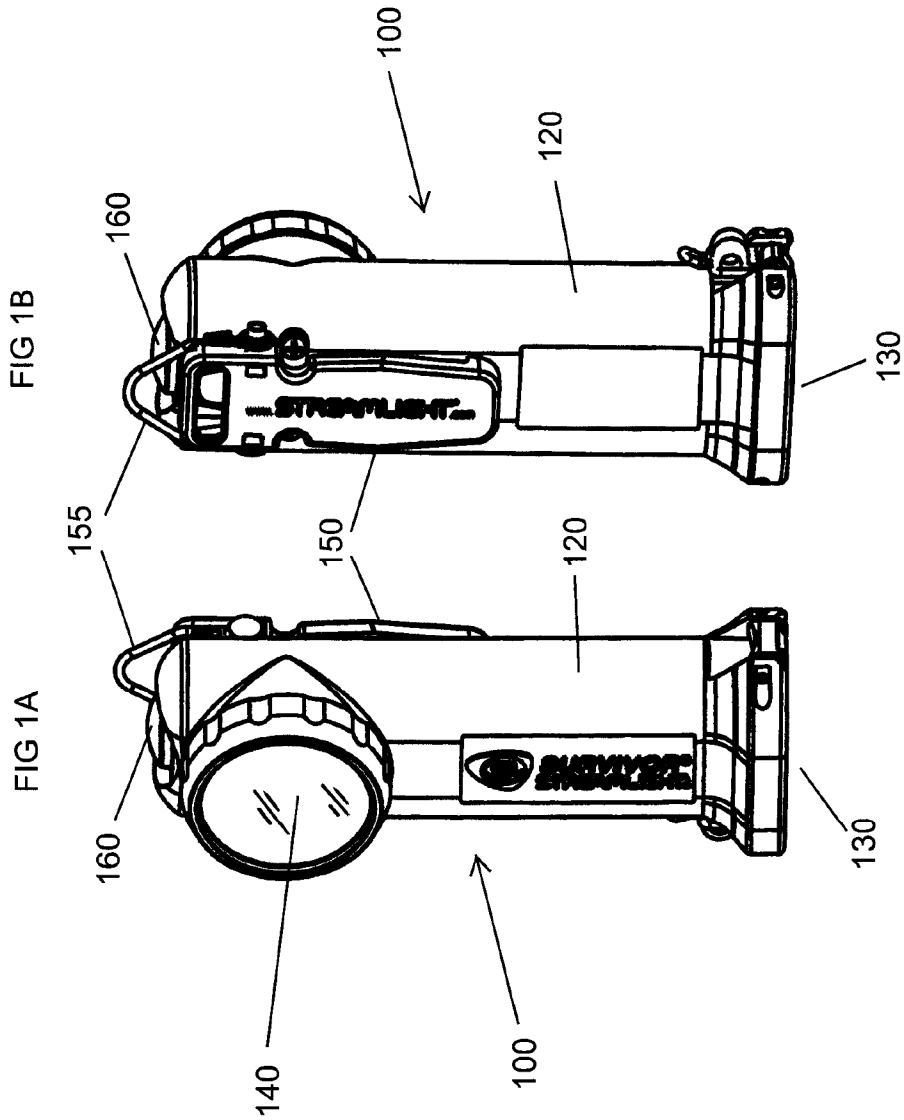
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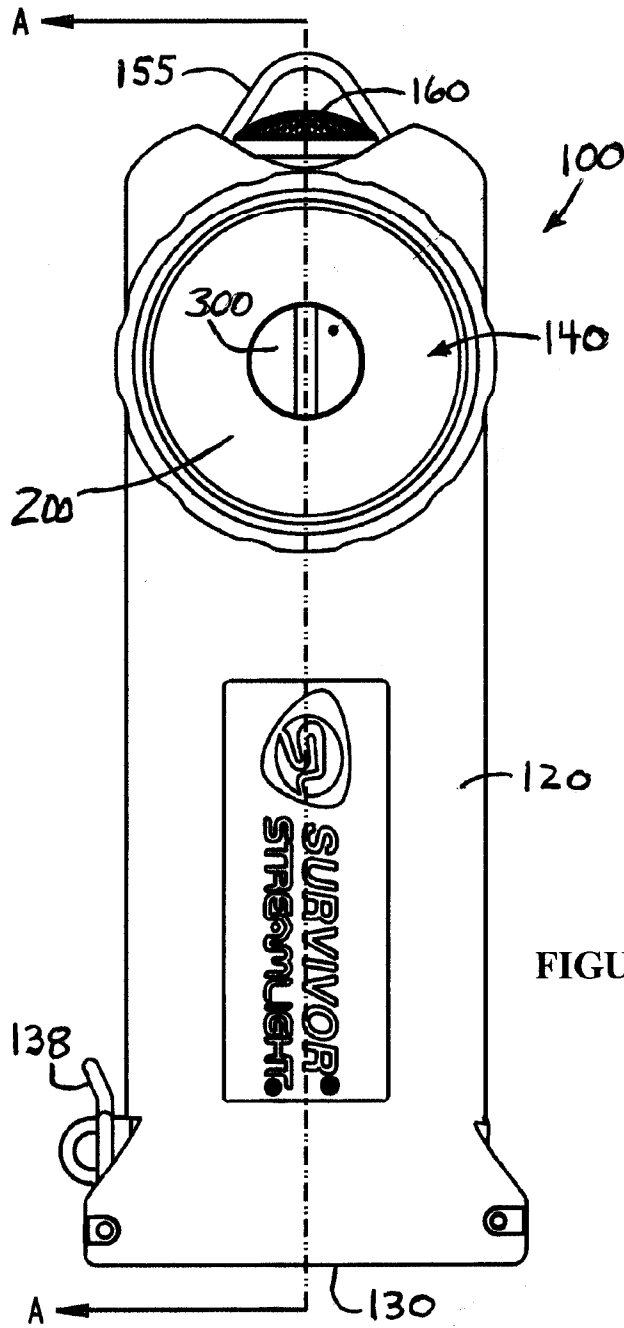


FIGURE 1C

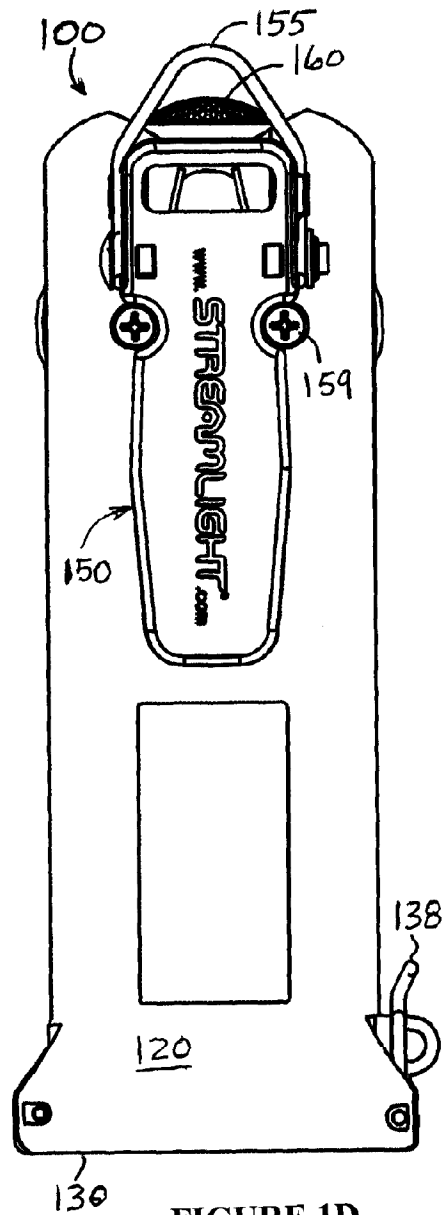


FIGURE 1D

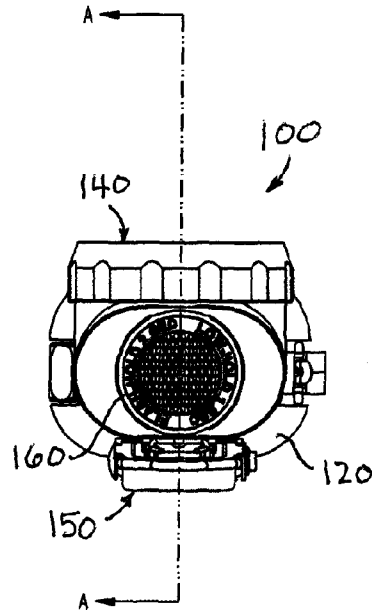


FIGURE 1E

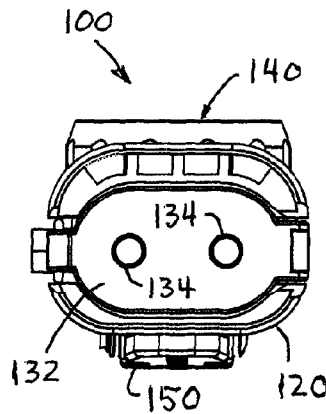


FIGURE 1F

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