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(12) **United States Patent**  
**Blondia et al.**

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- (54) **METAL BODY ARC LAMP**
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- (\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 838 days.

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(51) **Int. Cl.**  
**H01J 1/88** (2006.01)

(57) **ABSTRACT**

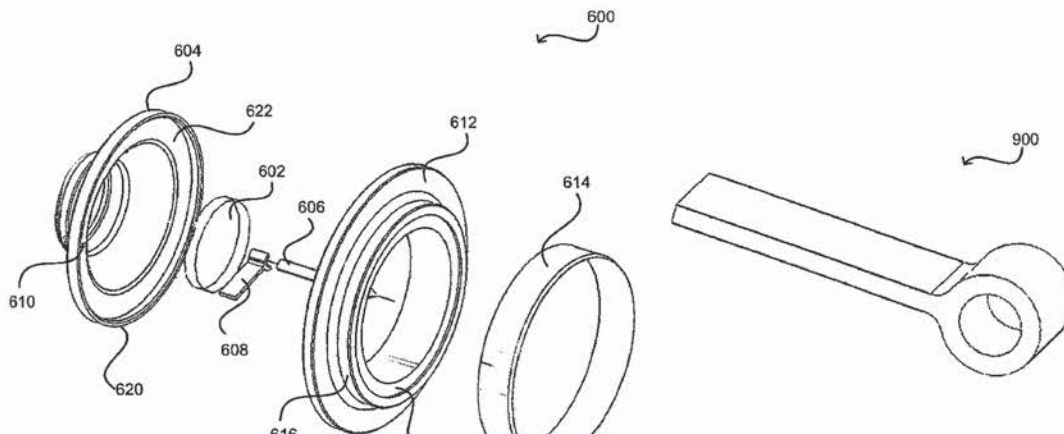
(52) **U.S. Cl.** ..... 313/252; 313/243  
(58) **Field of Classification Search** ..... 313/40,  
313/44, 45, 113, 243, 252  
See application file for complete search history.

A short arc lamp comprises front and back subassemblies including mating weld rings, whereby the lamp can be assembled and sealed through welding of the weld rings. Each subassembly includes a number of self-aligning components to facilitate assembly and improve alignment accuracy. The metal body of the lamp can have a cooling projection portion, which can be received by a heat sink to remove heat from near the anode. A heat sink also can be formed as part of the metal body. The lamp reflector can be a drop-in reflector, or can be formed as part of the metal body through a process such as metal injection molding. A single strut can be used to position the cathode, which can be part of the sleeve or received by a portion of the sleeve. A trigger electrode can be used to simplify the power supply for the lamp.

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**9 Claims, 22 Drawing Sheets**



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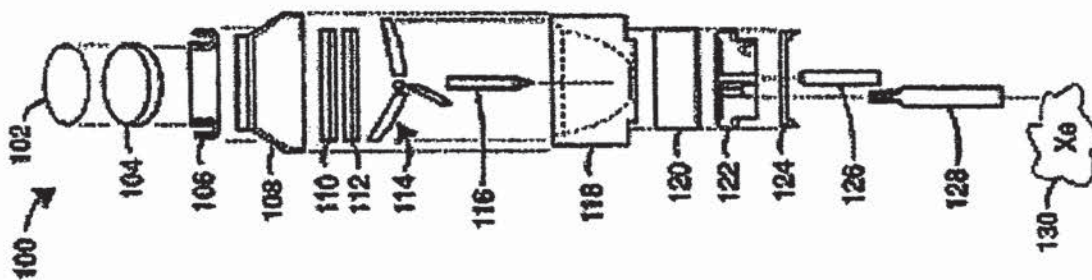
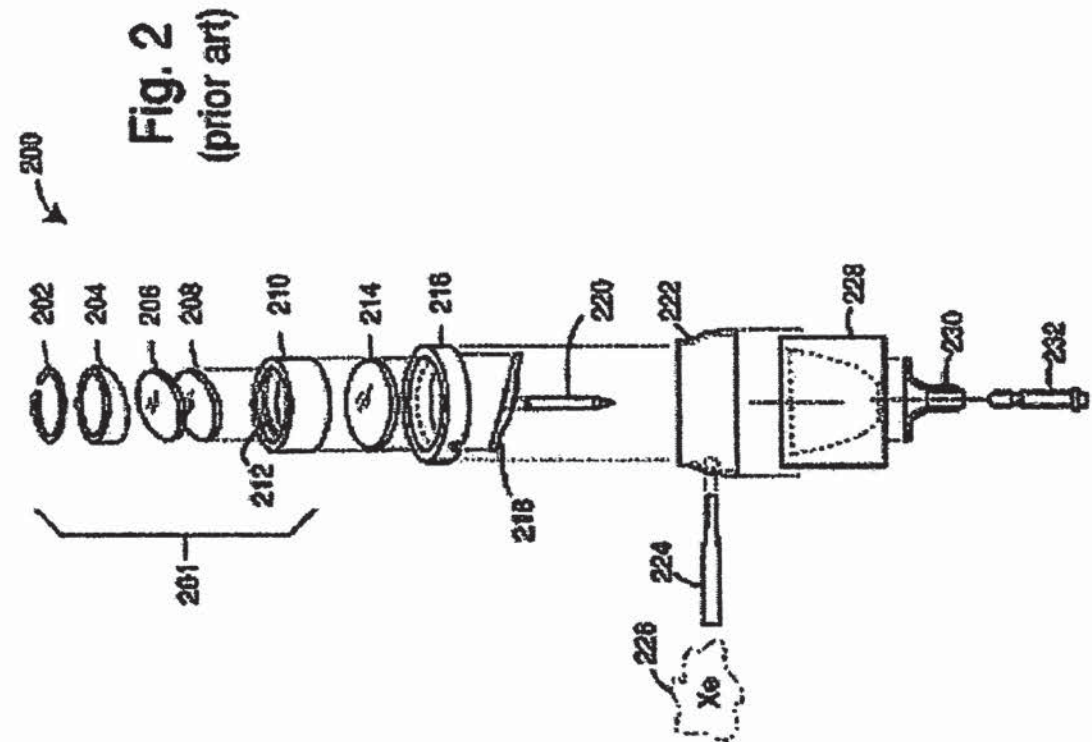


Fig. 1  
(prior art)

Fig. 2  
(prior art)

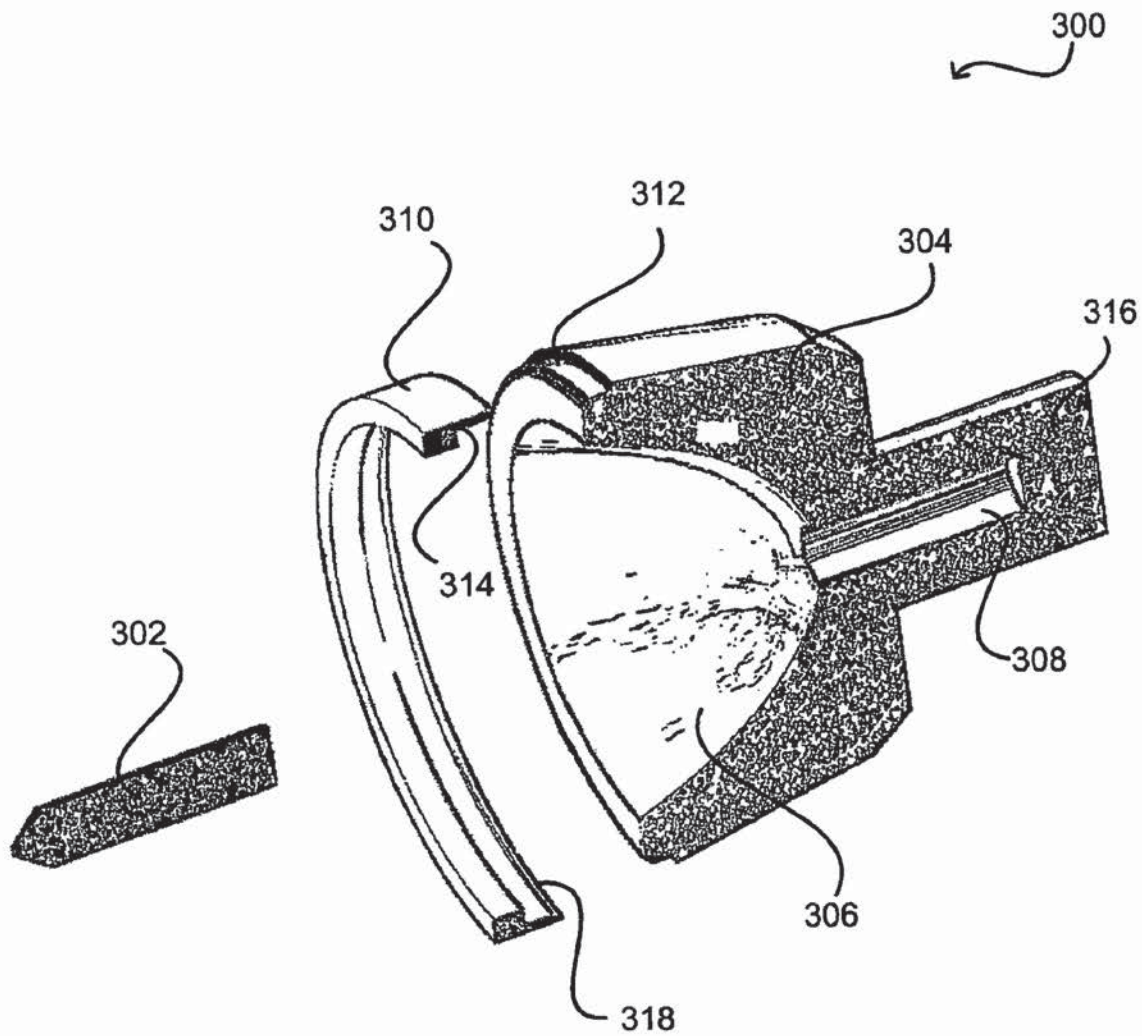


Fig. 3(a)

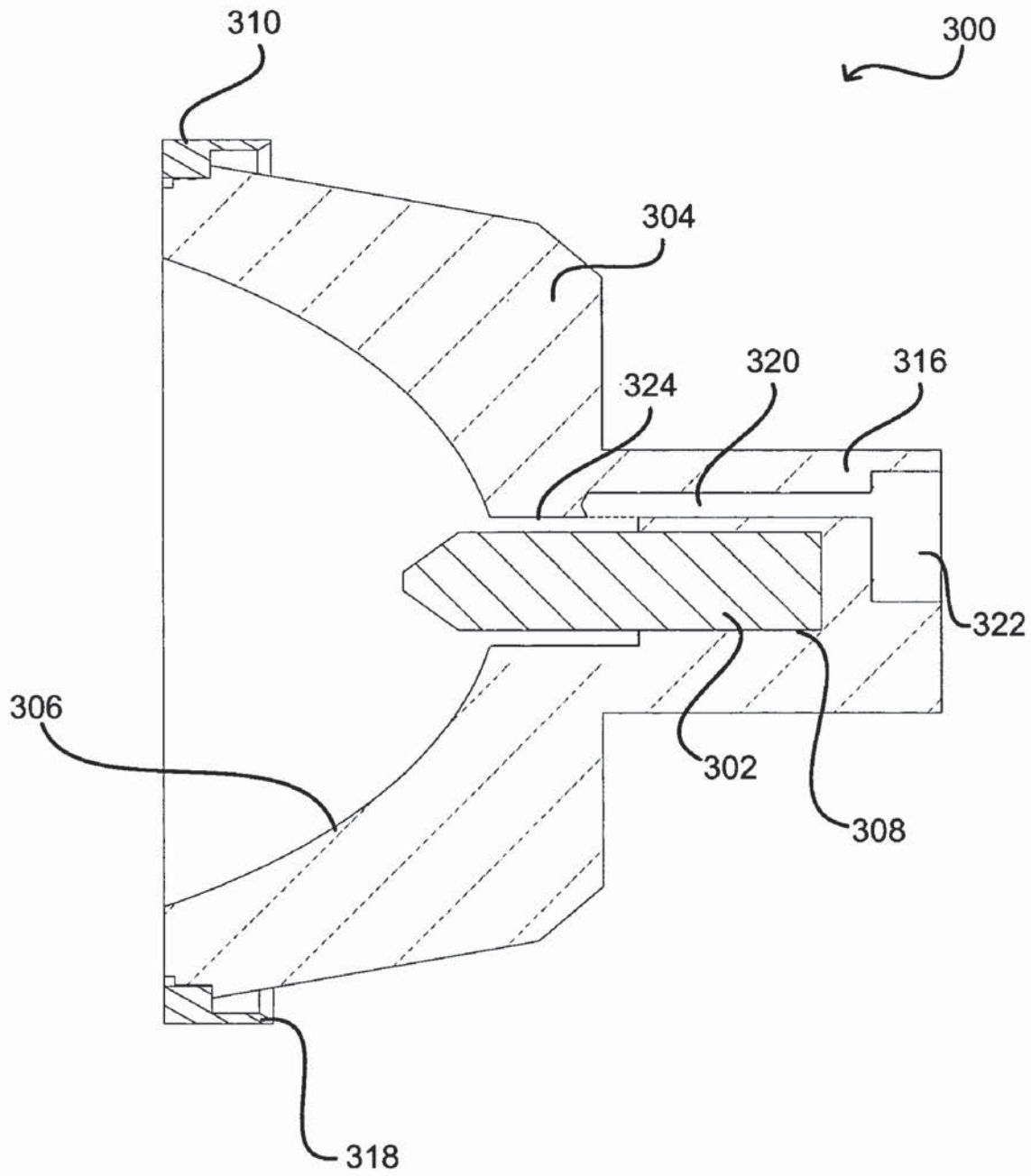


Fig. 3(b)

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