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(54) **METHODS AND APPARATUSES FOR APPLYING AGENT TO OBJECTS**

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(71) Applicants: **Jonathan J. Ricciardi**, West Richland, WA (US); **Carl L. Ricciardi**, Tomahawk, WI (US)

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(72) Inventors: **Jonathan J. Ricciardi**, West Richland, WA (US); **Carl L. Ricciardi**, Tomahawk, WI (US)

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(21) Appl. No.: **13/679,946**

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Related U.S. Application Data

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(63) Continuation-in-part of application No. 13/541,724, filed on Jul. 4, 2012, now abandoned, which is a continuation-in-part of application No. 13/236,198, filed on Sep. 19, 2011, now abandoned, which is a continuation-in-part of application No. 13/052,199, filed on Mar. 21, 2011, now Pat. No. 8,062,590, which is a continuation-in-part of application No. 12/567,428, filed on Sep. 25, 2009, now Pat. No. 8,110,156.

(74) *Attorney, Agent, or Firm* — Donald J. Ersler

(57) **ABSTRACT**

(51) **Int. Cl.**
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Methods and apparatus for the sanitization, detoxification, disinfection, high level disinfection, or sterilization of both the interior and exterior surfaces of at least one object, including interior lumens, channels and cavities within the object. A coupler and interface may be secured to an object to disinfect the inner channels or cavities therein. An object support device may be used to support the object. The pair of support devices may include outlets for deploying aerosols for the application of applied agent. The applied agent may be in the form of any gas, vapor, plasma, aerosol, or other form. The temperature of the object may be lowered to condensate applied agent thereupon. The object may also be washed. Complete sanitization, disinfection, or sterilization of objects in a simple chamber, or in more complex configurations that include, glove box units, processors with built in interfaces for specialty applications, and other application specific designs.

(52) **U.S. Cl.**
CPC *A61L 2/16* (2013.01); *A61L 2/22* (2013.01)

(58) **Field of Classification Search**
CPC A61L 2/16; A61L 2/22
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See application file for complete search history.

20 Claims, 25 Drawing Sheets

