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Fulbrook

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(54) **ULTRAVIOLET LIGHT DISINFECTING
FACE SHIELD SYSTEM**

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A62B 18/08 (2006.01)

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(2013.01); **A61L 9/205** (2013.01); **A61L 9/22**
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18/02 (2013.01); **A62B 18/08** (2013.01); **A61L**
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23/00; **A61L 9/20**; **A61L 9/205**; **A61L**
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A61L 2209/212; **A41D 13/11**; **A42B 3/22**;
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See application file for complete search history.

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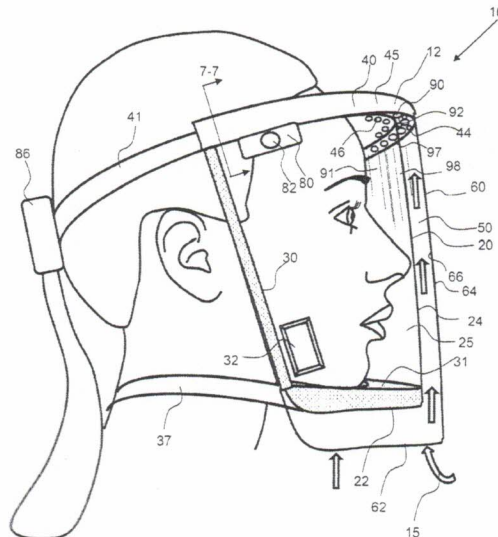
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(57) **ABSTRACT**

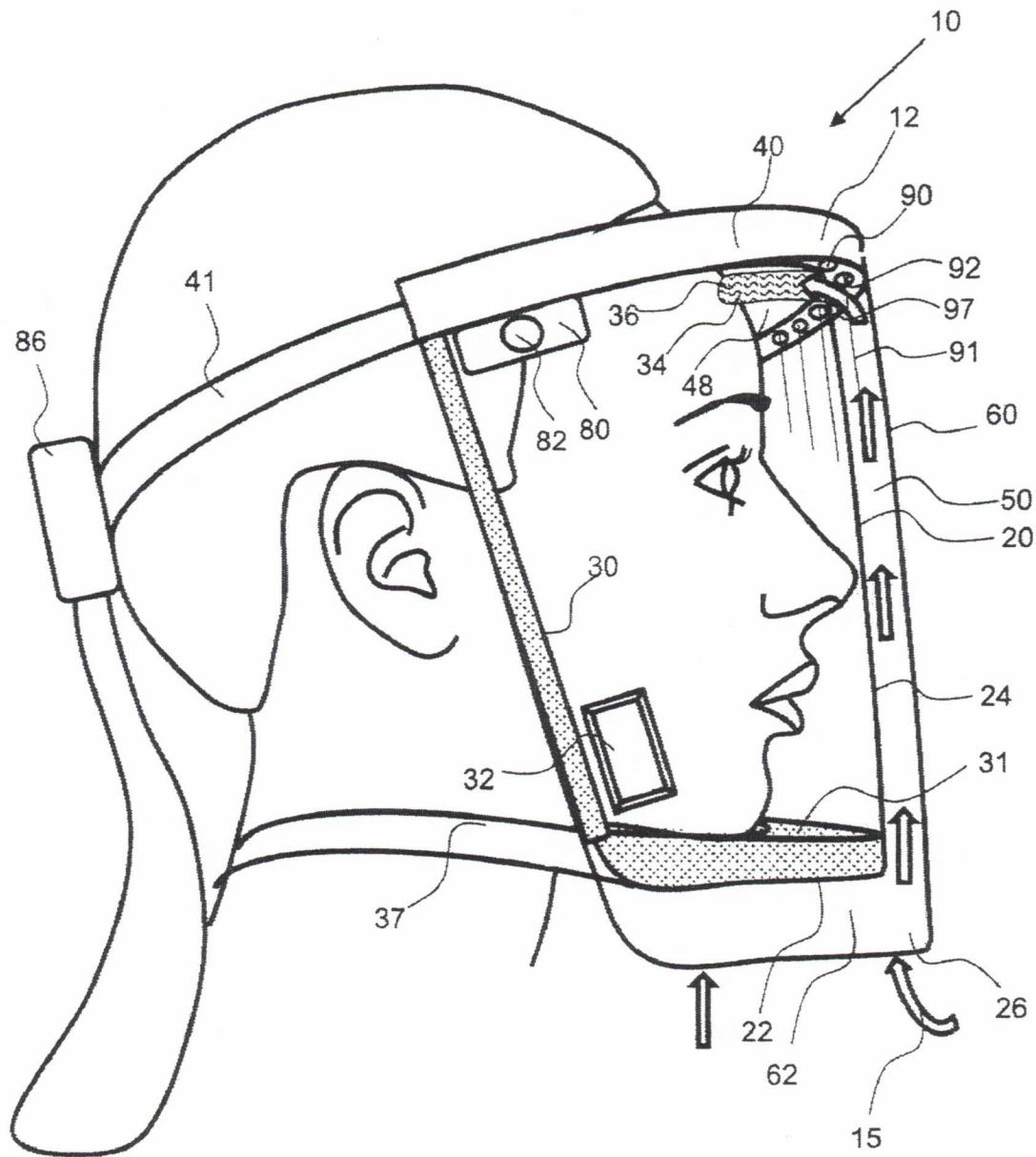
A face shield system utilizes a headgear with an outer shield and an optional inner side that is proximal to a person wearing the face shield. The headgear may be configured to receive a disinfecting cartridge that neutralize or destroy pathogens in an airflow flowing therethrough. The cartridge may include a neutralizing UV light emitter and a destroying UV light emitter as well as an ionizer. The plenum may include a plurality of baffles to produce a serpentine flow through the plenum. The baffles and the interior of the plenum may be textured and polished and may include catalytic coatings for improving the effectiveness of pathogen destruction and absorbing ions and UV light. An air inlet may allow air from the plenum to pass into the inner side of the shield after the air is disinfected and purified by the UV light emitters.

25 Claims, 12 Drawing Sheets



Ultraviolet Light Disinfecting Face Shield System

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|---------------------------------------|----------------------------------|
| 10 UV Disinfecting Face Shield System | 40 Head gear |
| 12 UV Disinfecting Face Shield | 41 Strap |
| 15 Inlet breathing air | 48 Head gasket |
| 20 Inner shield | 50 Air plenum |
| 22 Extended end | 60 Outer shield |
| 24 UV light protection barrier | 62 Extended end |
| 26 Plenum inlet | 80 Controller |
| 30 Face gasket | 82 User interface |
| 31 Chin gasket | 86 Battery |
| 32 One way exhaust valve | 90 UV light emitter |
| 34 Inlet | 91 UV light |
| 36 Inlet filter | 92 Neutralizing UV light emitter |
| 37 Strap | 97 Destruction UV light emitter |