

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

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(54) **HARD HAT WITH FILTERED, BATTERY-OPERATED AIR FLOW SYSTEM AND METHOD**

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(57) **ABSTRACT**
One or more battery-operated fans are integrated into a hard hat and pull air through a filter to remove contaminants in the air. The filtered air passes through one or more channels in the hard hat and exits the hard hat through an air curtain exit located near the user's face. The exiting air leaves with sufficient velocity to form an air curtain. A user wearing goggles or other protective eyewear will have the filtered air current pass in front of the eyewear. Paint and other contaminant particles that are in the air will not be able to contact the outer surface of the eyewear, as the particles will not be able to pass through the curtain of filtered air.

14 Claims, 18 Drawing Sheets

