Blackford to Receive Millson Award

AATCC is proud to recognize **Woody (Michael) Blackford** as the 2024 recipient of the Henry E. Millson Award for Invention. The Millson Award recognizes inventions that are outstanding contributions to textile technology. Blackford developed a thermal-reflective textile at Columbia Sportswear that aided the space-exploration company, Intuitive Machines. The integration of Omni-Heat into Intuitive Machines' robotic lunar lander assisted the first-ever commercial spacecraft, and the first US spacecraft in over 50 years, to soft land on the moon in 2024. This innovative thermal-reflective textile, designed and developed by Columbia Sportswear, invented by Blackford, helped protect the spacecraft from the extreme temperatures of space.

Blackford's invention was originally inspired by the metallic foil insulations used in the space industry. These insulations are commonly used as emergency thermal blankets, and function as barriers to moisture vapor transfer. Blackford developed a way to apply metallic heat-reflecting elements to textile fabrics at scale; to allow for breathability through the underlying fabric. Blackford's invention was introduced into the marketplace in 2010 by Columbia Sportswear as Omni-Heat Reflective. Previously, cold-weather outerwear employed the same type of insulation as the space industry's metallic foil insulations. This type of outerwear traps air to decrease thermal conductivity between humans and environment, retaining heat inside the garment. Tightly constructed shell fabrics, or fabric-membrane laminates used as shell fabrics, cut down on convective heat loss. However, heat transfer can also occur by radiation in addition to conduction and convection and can be significant in cold environments. Blackford's invention demonstrates successful commercial products for heat retention could be designed and merchandised by considering all modes of heat transfer. The result has been the introduction of other winter products by other companies into the market that also work in part by mitigating heat loss via radiation.

Career

Blackford first joined Colombia Sportswear in 2005 and invented some of Columbia's most innovative products and technologies from 2005 through 2019, such as Omni Heat, OutDry Extreme, Omni Freeze Zero, and Sun Deflector. In 2019, he expanded his expertise in design, leadership, product development, and category expansion with a focus on footwear and innovation as Executive Vice President, Chief Product Officer at Canada Goose. Blackford returned to Columbia Sportswear in 2023, and is currently Senior Vice-President, Chief Product Officer. He has received 237 utility patents, under 22 patent families. In 2024, Blackford received a patent for limited conduction heat retaining materials, which relate to heat reflecting materials and, in particular, to materials that offer improved heat retention or reflective properties and limit heat conduction without compromising breathability.

The Award

Henry E. Millson was a noted inventor, and head of dyes research for American Cyanamid. He was the 1958 recipient of the distinguished AATCC Olney Medal. He provided an award endowment in 1979, with the stipulation that he never be considered a candidate. After agreeing to that condition, the Association promptly named the award in his honor. The Millson Award for Invention recognizes inventions in the textile field. The Millson Award is awarded every three years.

The Millson Award will be presented to Blackford at the AATCC Textile Discovery Summit, held at The Westin Savannah Harbor Golf Resort & Spa in Savannah, GA, USA. The Association will present the Millson Award at the Awards Luncheon on October 8, 2024.

For a description of the Millson Award and a list of past award recipients, visit **www.aatcc.org/millson**.