

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2022/0369426 A1 Chase et al.

Nov. 17, 2022 (43) **Pub. Date:**

(54) HIGH STRAIN LEAD

(71) Applicant: Battelle Memorial Institute, Columbus, OH (US)

(72) Inventors: **David R. Chase**, Columbus, OH (US); Matthew E. Huntwork, Columbus, OH

(US)

(21) Appl. No.: 17/744,559

(22) Filed: May 13, 2022

Related U.S. Application Data

(60) Provisional application No. 63/188,409, filed on May 13, 2021.

Publication Classification

Int. Cl. (51)H05B 3/34 (2006.01)B64D 15/12 (2006.01)F03D 1/06 (2006.01)(2006.01) H05B 1/02

(52) U.S. Cl.

H05B 3/347 (2013.01); B64D 15/12 CPC (2013.01); F03D 1/0675 (2013.01); H05B *1/0272* (2013.01)

(57)ABSTRACT

A resistive heater system comprising a braided and flattened electrical lead connected to a heating blanket or coating at one end of the lead. The braided and flattened electrical lead comprises a folded-over section that forms an angle in the lead of 70 to 110°. The invention also includes an aircraft comprising the heater system. Nonlimiting examples of aircraft include helicopter, drone, and airplane.

