US 20230232506A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2023/0232506 A1**

Lazor (43) **Pub. Date: Jul. 20, 2023**

(54) **TRANSVERSE FLUX INDUCTION HEATING DEVICE FOR HEATING FLAT PRODUCT**

(71) Applicant: **Ajax Tocco Magnethermic Corporation**, Warren, OH (US)

(72) Inventor: **David Lazor**, Warren, OH (US)

(73) Assignee: **Ajax Tocco Magnethermic Corporation**, Warren, OH (US)

(21) Appl. No.: **18/001,554**

(22) PCT Filed: **Jun. 25, 2021**

(86) PCT No.: **PCT/US21/39095**

§ 371 (c)(1),
(2) Date: **Dec. 12, 2022**

Related U.S. Application Data

(60) Provisional application No. 63/045,000, filed on Jun. 26, 2020.

Publication Classification

(51) **Int. Cl.**
H05B 6/10 (2006.01)
H05B 6/36 (2006.01)
H05B 6/44 (2006.01)

(52) **U.S. Cl.**
CPC ***H05B 6/101*** (2013.01); ***H05B 6/362*** (2013.01); ***H05B 6/44*** (2013.01)

(57) **ABSTRACT**

An induction heating apparatus and method of use wherein the apparatus includes two poles, each pole comprising a pair of spaced apart coils wherein at least one of a spacing between the poles and the pole pitch is adjustable to control the power density transferred to a workpiece across its width. In some embodiments, movable flux shields are also adjusted to control power density transferred along edge portions of the workpiece.