



US 20240237149A1

(19) **United States**

(12) **Patent Application Publication**
Morris et al.

(10) **Pub. No.: US 2024/0237149 A1**

(43) **Pub. Date: Jul. 11, 2024**

(54) **COOKTOP APPLIANCE AND METHODS OF
BURNER OR UTENSIL DETECTION**

(52) **U.S. Cl.**

CPC **H05B 1/0266** (2013.01); **H05B 2213/05**
(2013.01)

(71) Applicant: **Haier US Appliance Solutions, Inc.,**
Wilmington, DE (US)

(57)

ABSTRACT

(72) Inventors: **Sarah Virginia Morris**, Louisville, KY
(US); **Isabella Mari Cuasay**,
Louisville, KY (US)

A cooktop appliance may include a cooktop plate, a capacitance grid, a plurality of burners, and a controller. The cooktop plate may define an upper cooking surface. The capacitance grid may be mounted to the cooktop plate. Each burner of the plurality of burners may include an electric heating element mounted below the cooktop plate. The controller may be operatively coupled to the capacitance grid and the plurality of burners. The controller may be configured to direct a cooking operation. The controller may include receiving one or more capacitance signals from the capacitance grid, detecting a capacitance increase based on the capacitance signals, identifying an engaged burner based on the detected capacitance increase, and directing a responsive action on the cooktop based on identifying the engaged burner.

(21) Appl. No.: **18/094,098**

(22) Filed: **Jan. 6, 2023**

Publication Classification

(51) **Int. Cl.**
H05B 1/02

(2006.01)

