



US 20220353961A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2022/0353961 A1****Kerr et al.**(43) **Pub. Date: Nov. 3, 2022**(54) **HEATER USING MICROWAVE ENERGY**(71) Applicants: **Gary R. Kerr**, Covina, CA (US);
Perry Tollett, Indian Wells, CA (US)(72) Inventors: **Gary R. Kerr**, Covina, CA (US);
Perry Tollett, Indian Wells, CA (US)(21) Appl. No.: **17/723,453**(22) Filed: **Apr. 18, 2022****Related U.S. Application Data**

(60) Provisional application No. 63/176,335, filed on Apr. 18, 2021, provisional application No. 63/298,877, filed on Jan. 12, 2022.

Publication Classification(51) **Int. Cl.**
H05B 6/64 (2006.01)
B60H 1/22 (2006.01)
F24H 3/00 (2006.01)(52) **U.S. Cl.**CPC **H05B 6/6491** (2013.01); **H05B 6/642**
(2013.01); **H05B 6/6402** (2013.01); **B60H**
1/2221 (2013.01); **F24H 3/004** (2013.01);
F24H 2250/12 (2013.01)

(57)

ABSTRACT

The present invention is a heater or heating device that uses microwave energy to generate heat quickly. The heater generates heat quickly by forcing air over microwave-heated oil or non-freeze liquid. As a non-limiting embodiment, the heater preferably includes most or all of the following components: an outer casing or housing, at least one air intake vent, a magnetron, a microwave emitter, a wave scatterer, at least one fluid holder, fluid, a capacitor, a transformer, a microwave containment casing, and a perforated microwave guard. As another non-limiting embodiment, the heater preferably includes most or all of following components: an outer casing or housing, a cooling fan, a magnetron, a microwave emitter, a wave scatterer, at least one non-freeze liquid holder, non-freeze liquid, a capacitor, a transformer, a microwave containment casing, a glass tube, a metal tube, a fan coil, a pump, a reservoir and expansion tank, and a fill plug.

