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- (54) **Title:** SYSTEM AND METHOD FOR SCALE REMOVAL FROM A NICKEL-BASED SUPERALLOY COMPONENT

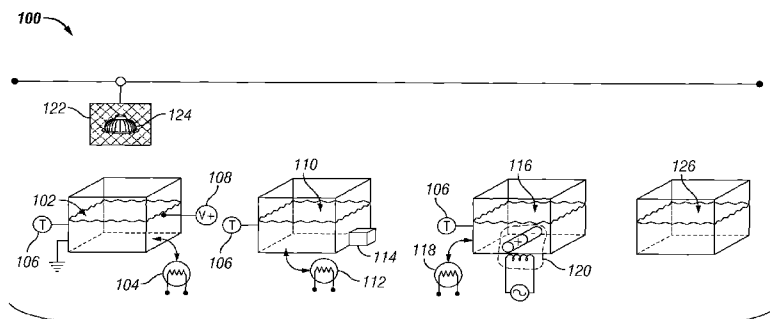


FIG. 1

- (57) **Abstract:** A system for cleaning scale from a nickel-based superalloy component is described. The system includes a molten salt, caustic alkaline solution, and an electrical charging device that provides at least 3 V DC to the molten salt bath. The system further includes a water rinse, a soap and water solution, an acid pickling solution, and an acetone rinse. The water rinse is air-agitated, the soap and water solution is acoustically coupled to an ultrasonic device, and the acid pickling solution is fluidly coupled to an agitator. The system includes a component positioning device structured to selectively, and successively, position the component within the molten salt bath, the water rinse, the soap and water solution, the acid pickling solution, the soap and water solution again, and the acetone rinse. The system includes a number of heating devices to provide selected temperatures to various selected solutions.