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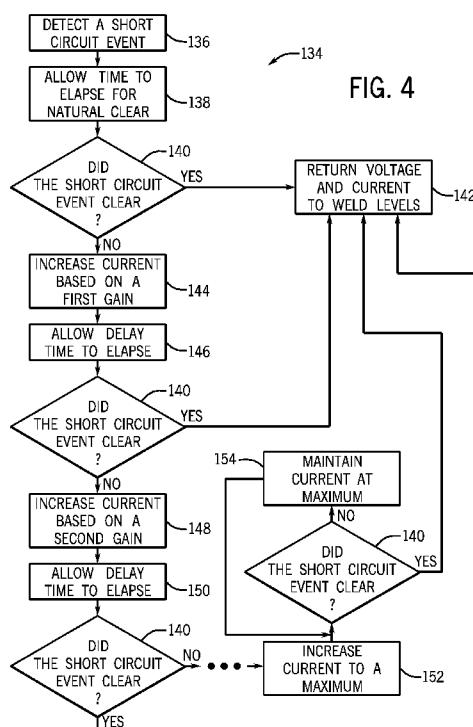
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(54) Title: SHORT CIRCUIT DETECTION SYSTEMS AND METHODS



(57) Abstract: A constant voltage (CV) welding process power supply is provided. The power supply includes a controller configured to detect a short circuit event in a CV welding process and increase a welding current based upon a periodically computed voltage error and a first gain to attempt to clear the short circuit event. The controller is further configured to detect whether the short circuit event has cleared after the first current increase. If the short circuit event has not cleared, the controller increases the welding current based upon the periodically computed voltage error and a second gain higher than the first gain.



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