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- (54) **Title: INGOT PULLER APPARATUS HAVING SILICON FEED TUBES WITH KICK PLATES**

(57) **Abstract:** Ingot puller apparatus that include a silicon feed tube for adding solid silicon to a crucible assembly are disclosed. The silicon feed tubes include a conduit portion having an inner diameter and a kick plate disposed below the conduit portion. The kick plate extends across at least 60% of the inner diameter of the conduit portion.

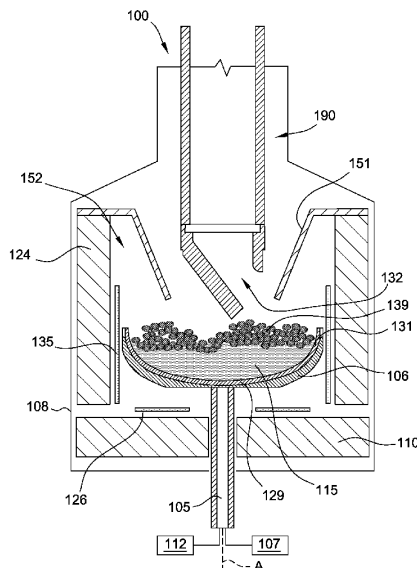


FIG. 4

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