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(54) **Title**: GAS DELIVERY SYSTEM FOR REDUCING OXIDATION IN WIRE BONDING OPERATIONS

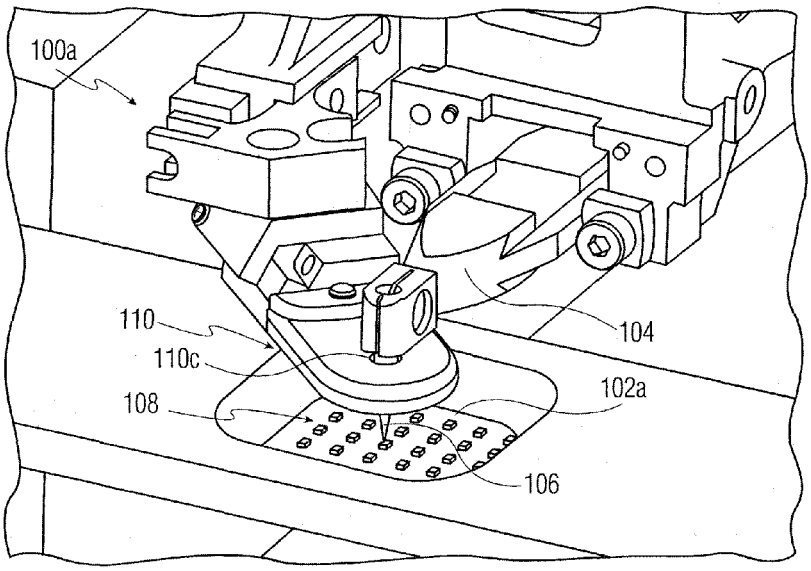


FIG. 1B

(57) **Abstract**: A wire bonding machine is provided. The wire bonding machine includes a bonding tool and an electrode for forming a free air ball on an end of a wire extending through the bonding tool where the free air ball is formed at a free air ball formation area of the wire bonding machine. The wire bonding machine also includes a bond site area for holding a semiconductor device during a wire bonding operation. The wire bonding machine also includes a gas delivery mechanism configured to provide a cover gas to: (1) the bond site area whereby the cover gas is ejected through at least one aperture of the gas delivery mechanism to the bond site area, and (2) the free air ball formation area.

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