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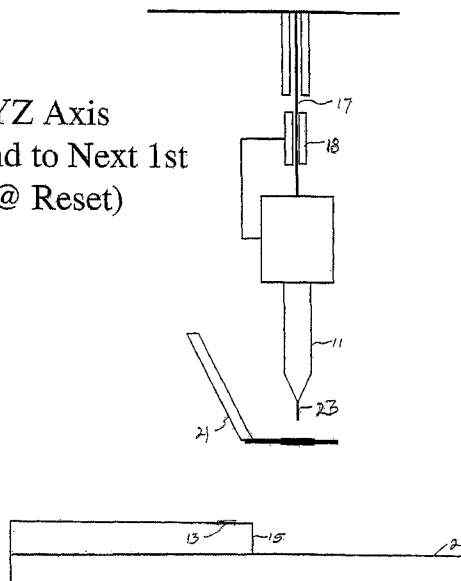
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[Continued on next page]

(54) Title: LOW LOOP HEIGHT BALL BONDING METHOD AND APPARATUS

XYZ Axis
2nd Bond to Next 1st
(Z @ Reset)



(57) Abstract: In accordance with the invention, a bump is formed on top of a die bond pad by forming a ball bond there. Then, without severing the wire, the capillary undergoes a set of coordinated motions to fold the wire on top of the ball bond. The wire is then stich bonded on top of the ball bond bump without severing the wire. This is then followed by a further set of coordinated xy motions to form the loop and bring the capillary over the second bond site (e.g., on the lead frame). The wire is then stich bonded to the second bond site and the tail severed to complete the wire loop interconnect.

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