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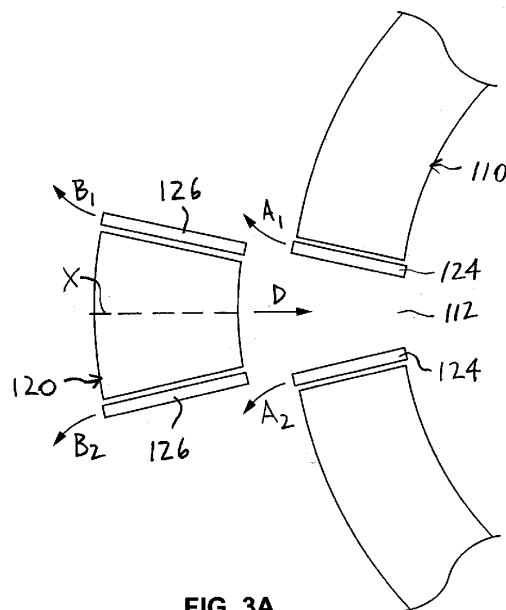


FIG. 3A

(57) Abstract: A method of at least partially filling an opening in a workpiece made of metal, the opening being at least partially defined by one or more opening walls having one or more opening wall surfaces. The method includes providing an insert bondable with the workpiece, the insert having one or more insert engagement surfaces formed for engagement with the opening wall surface. The opening wall surface and the insert engagement surface are heated to a hot working temperature. The insert is subjected to engagement motion, to move the insert engagement surface relative to the opening wall surface. While the insert is subjected to the engagement motion, the insert is also subjected to a translocation motion to move the insert at least partially into the opening, for engaging the insert engagement surface with the opening wall surface, for at least partially creating a metallic bond between the insert and the workpiece.

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