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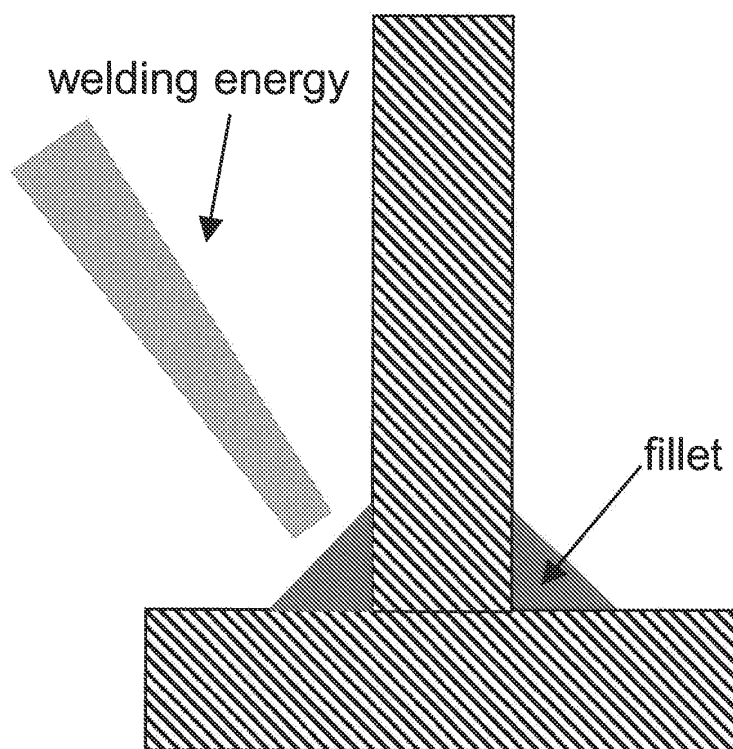


FIG. 1
PRIOR ART

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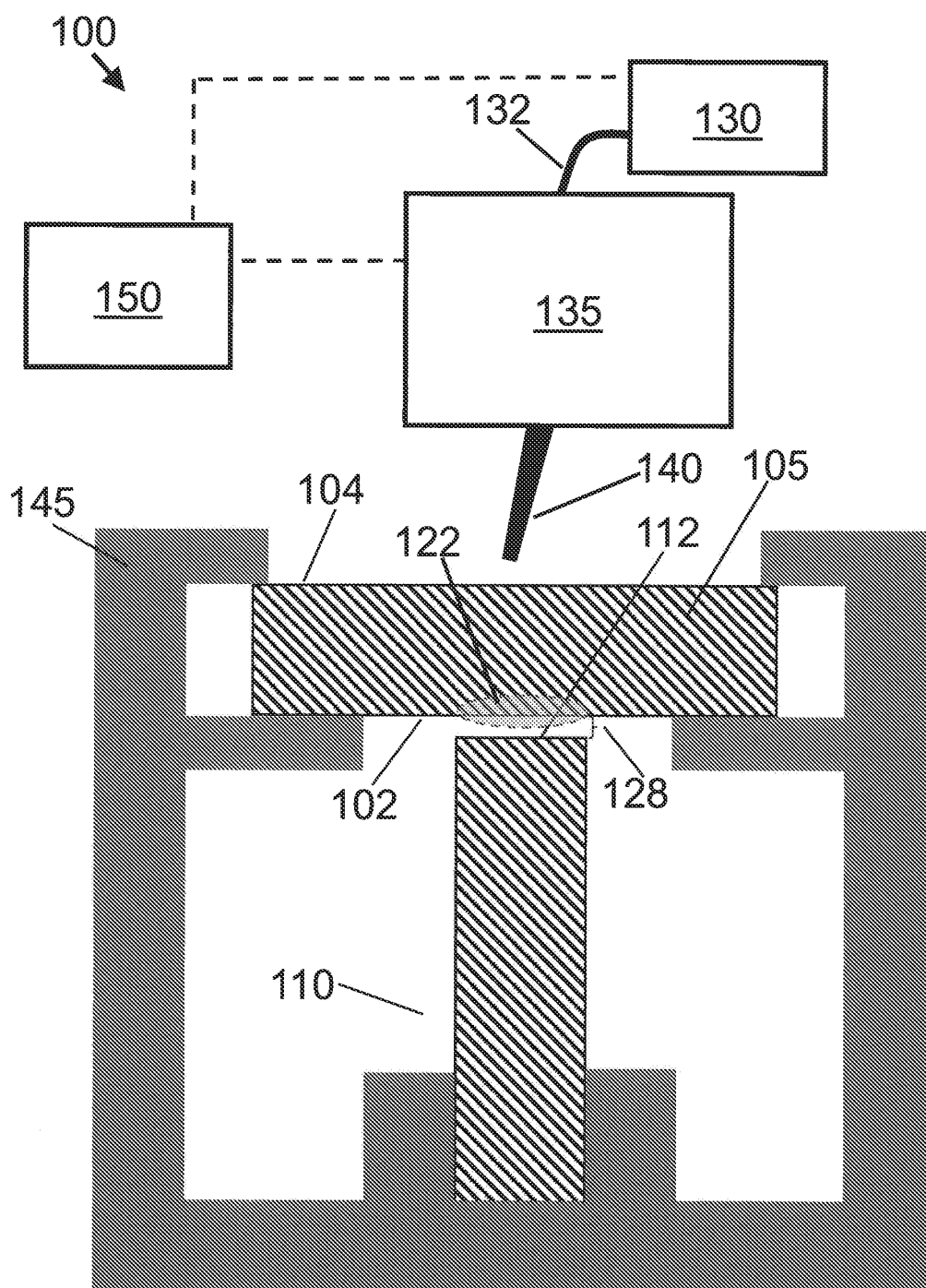


FIG. 2A

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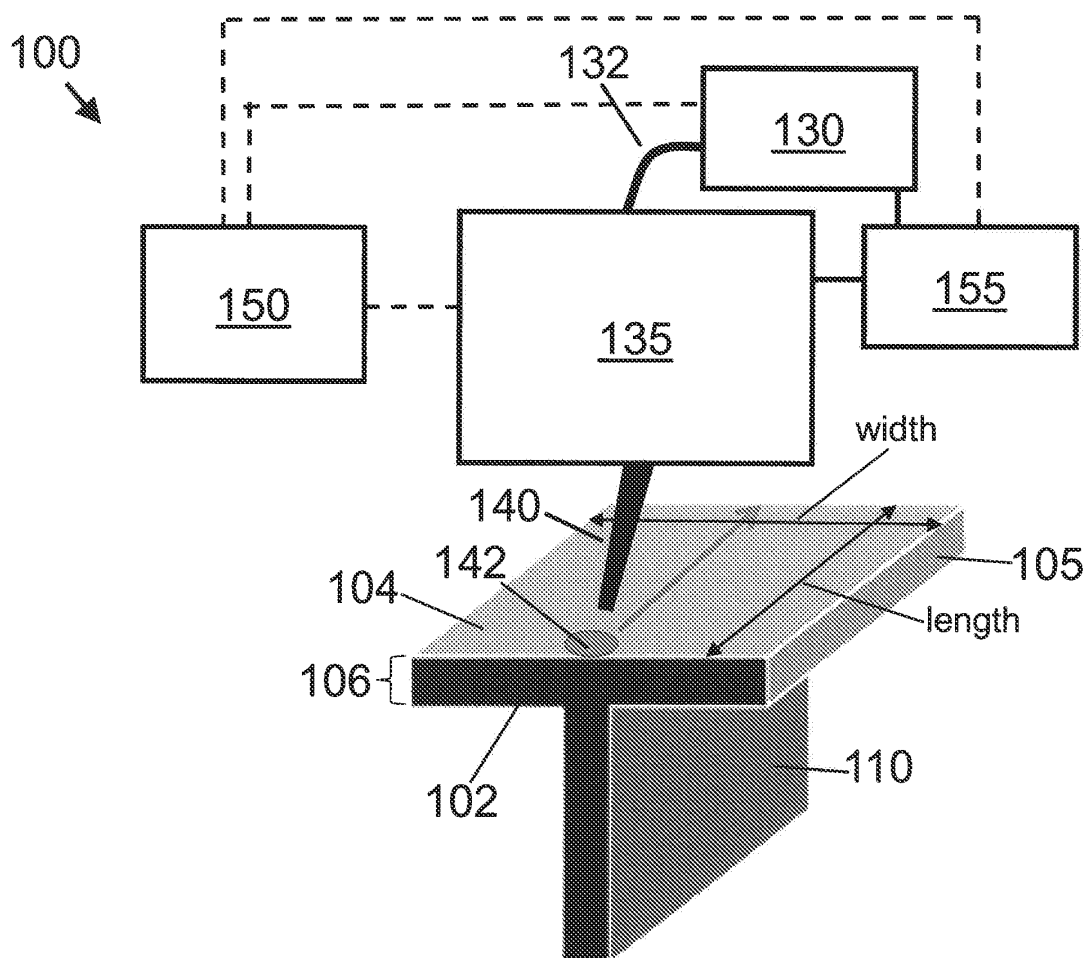


FIG. 2B

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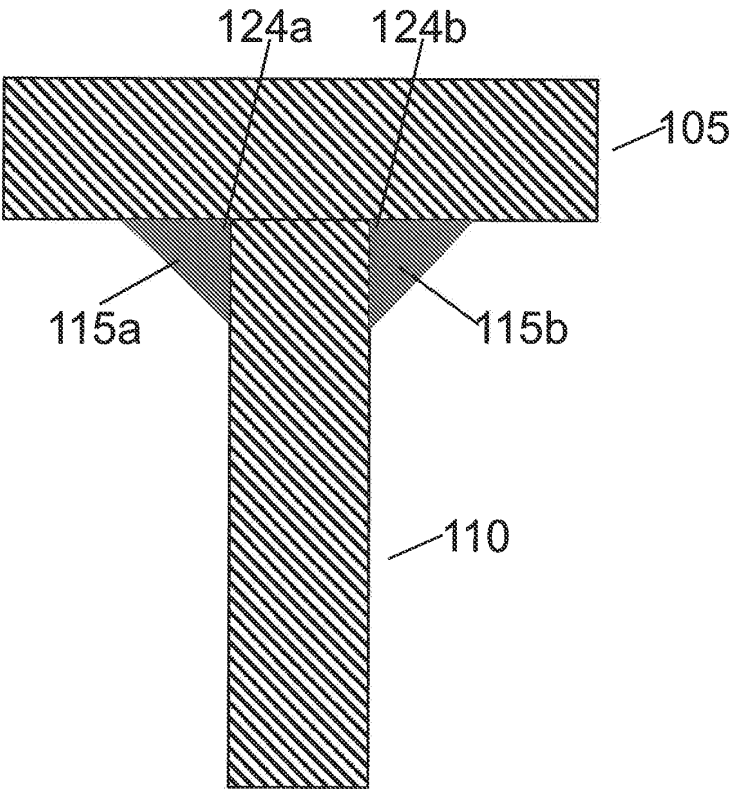


FIG. 2C

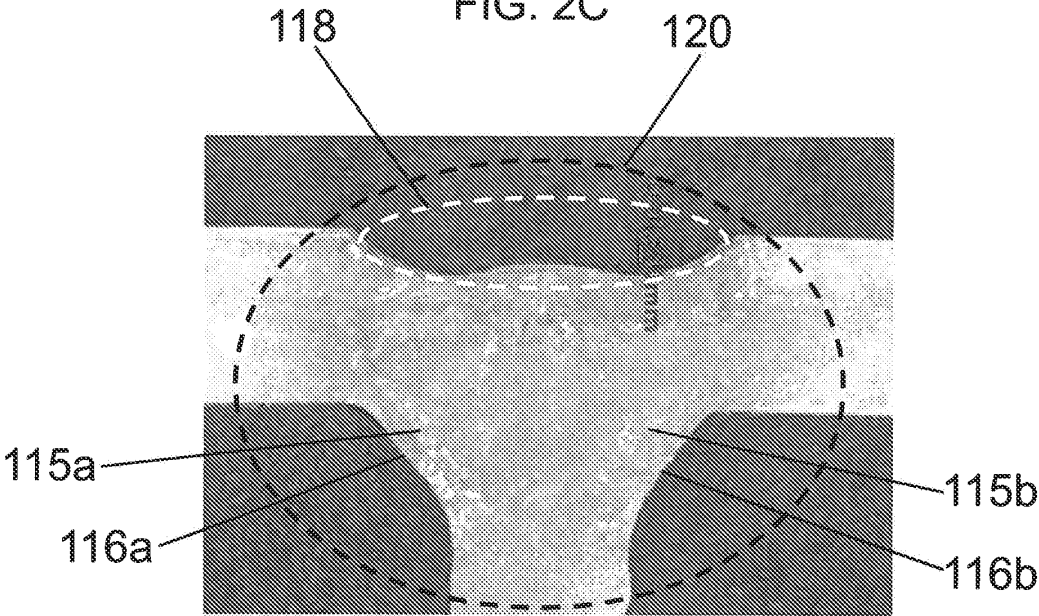


FIG. 2D

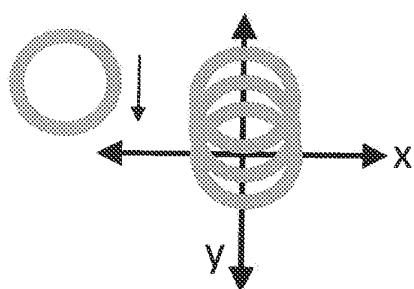


FIG. 3A

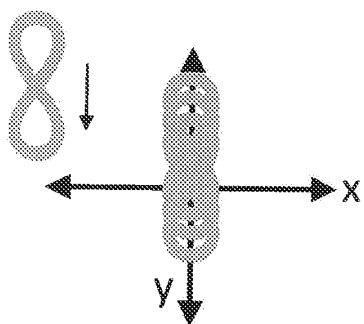


FIG. 3B

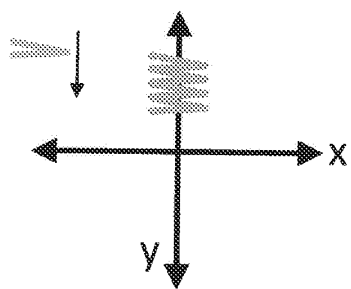


FIG. 3C

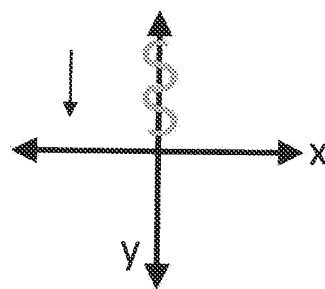


FIG. 3D

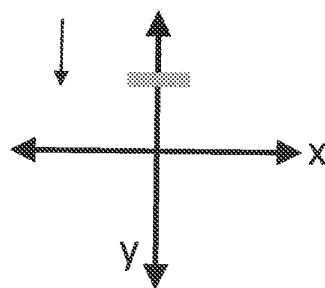


FIG. 3E

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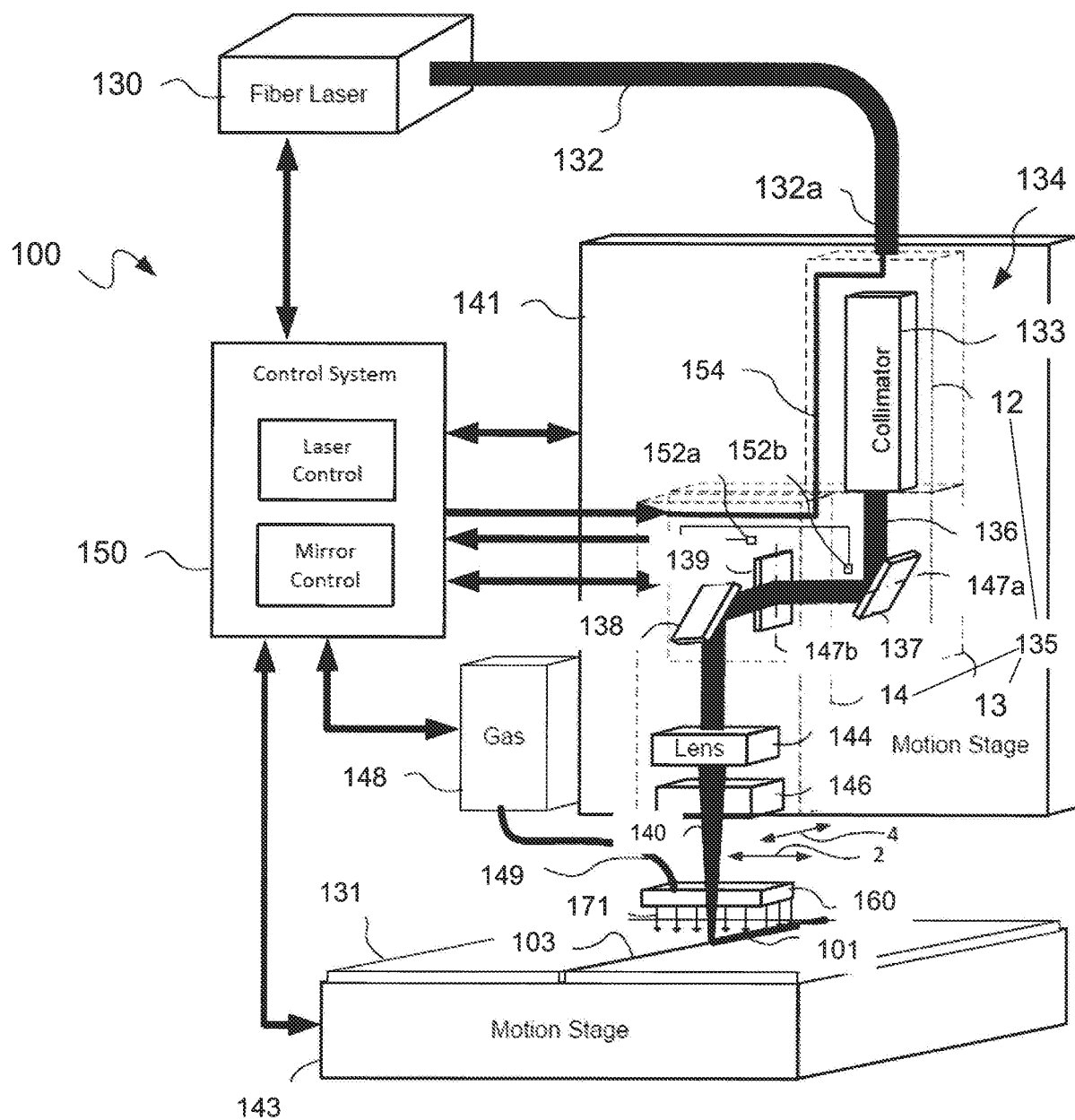


FIG. 4A

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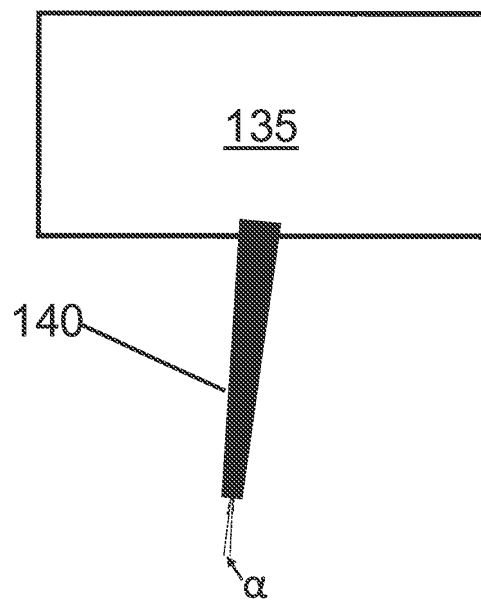


FIG. 4B

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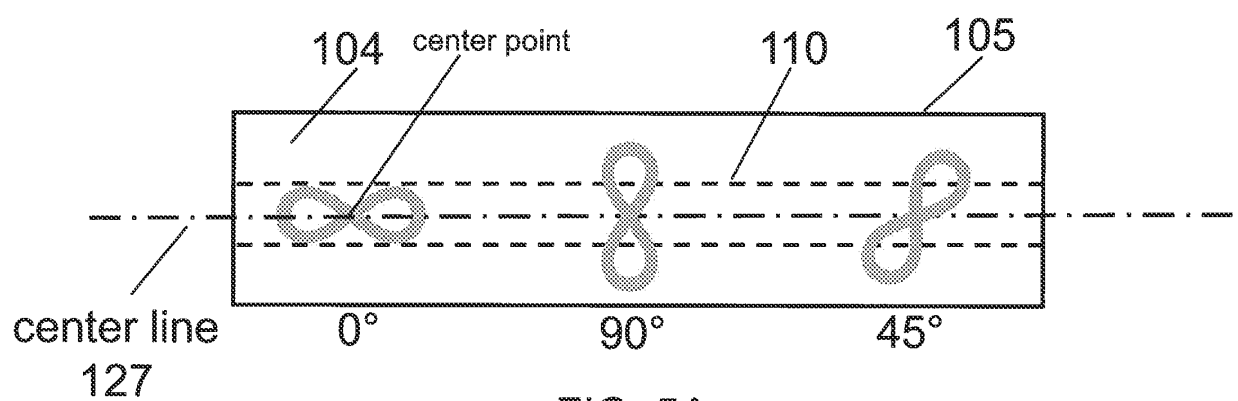


FIG. 5A

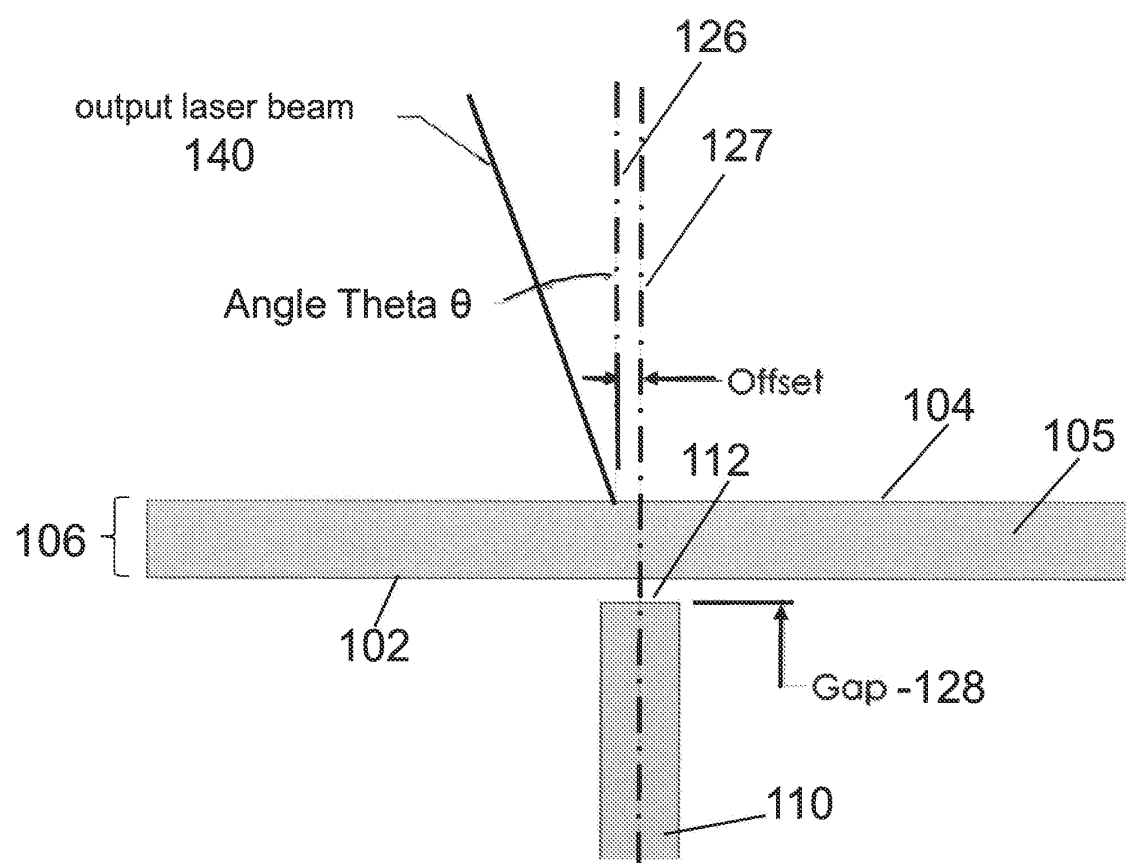


FIG. 5B

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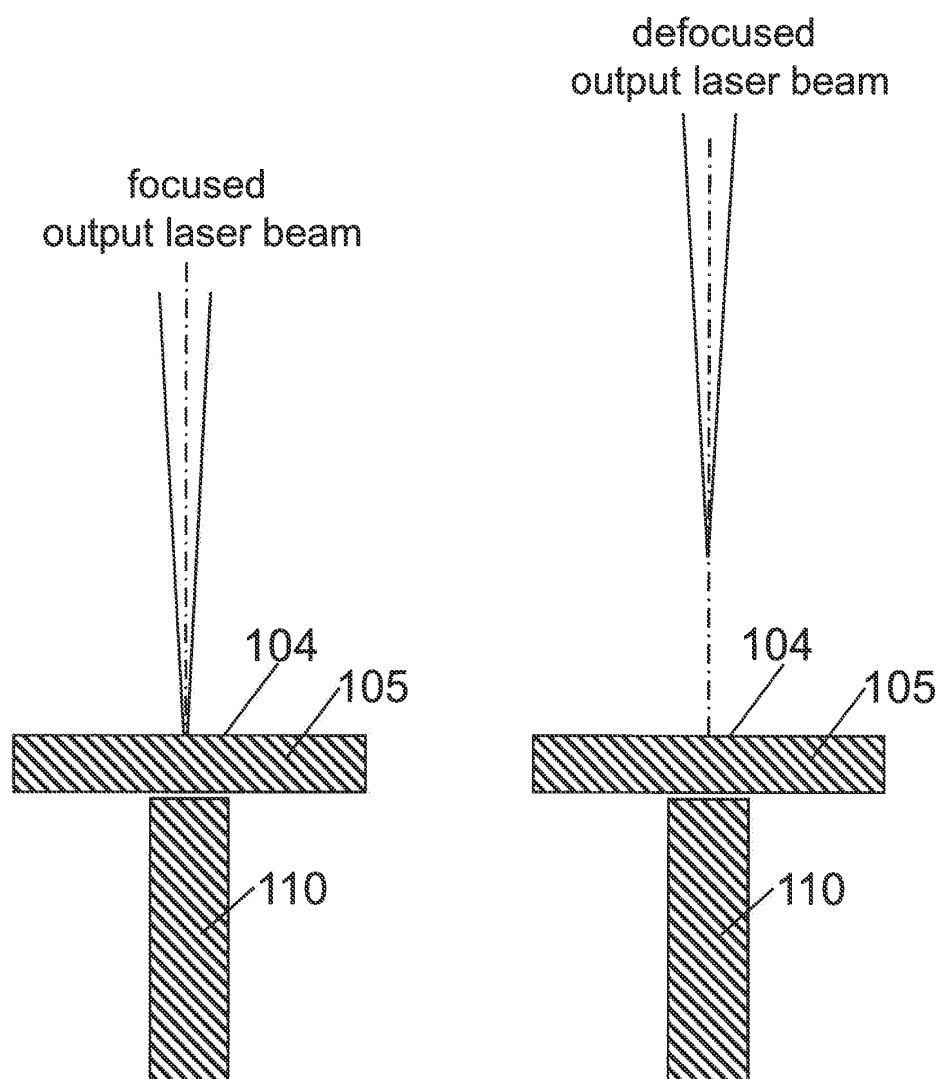


FIG. 6

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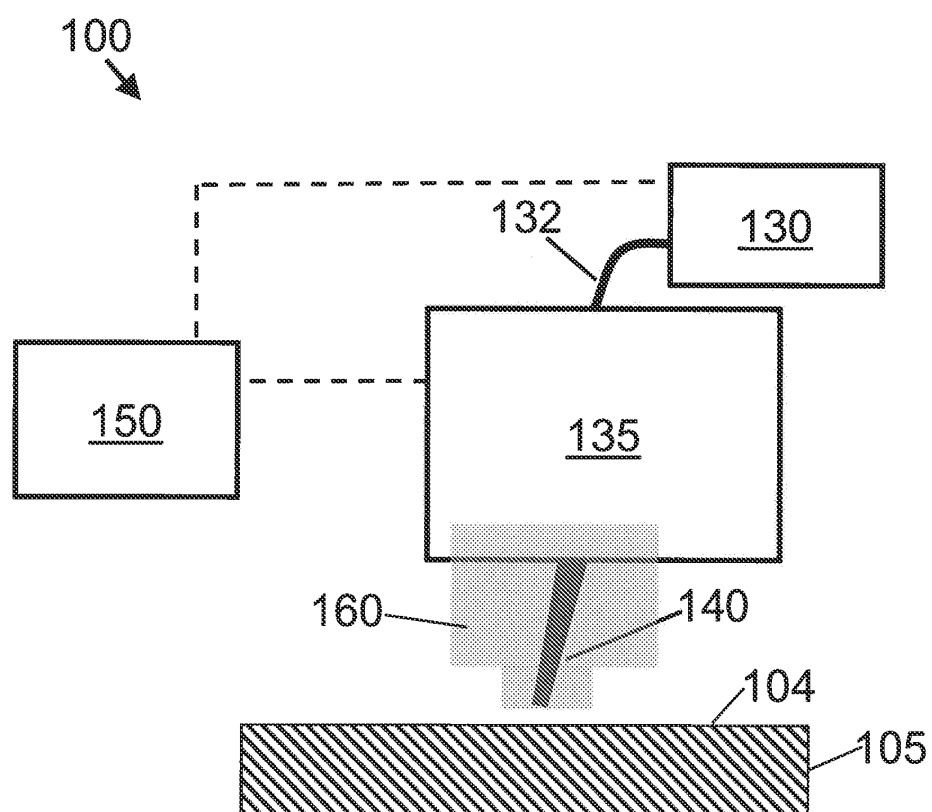


FIG. 7A

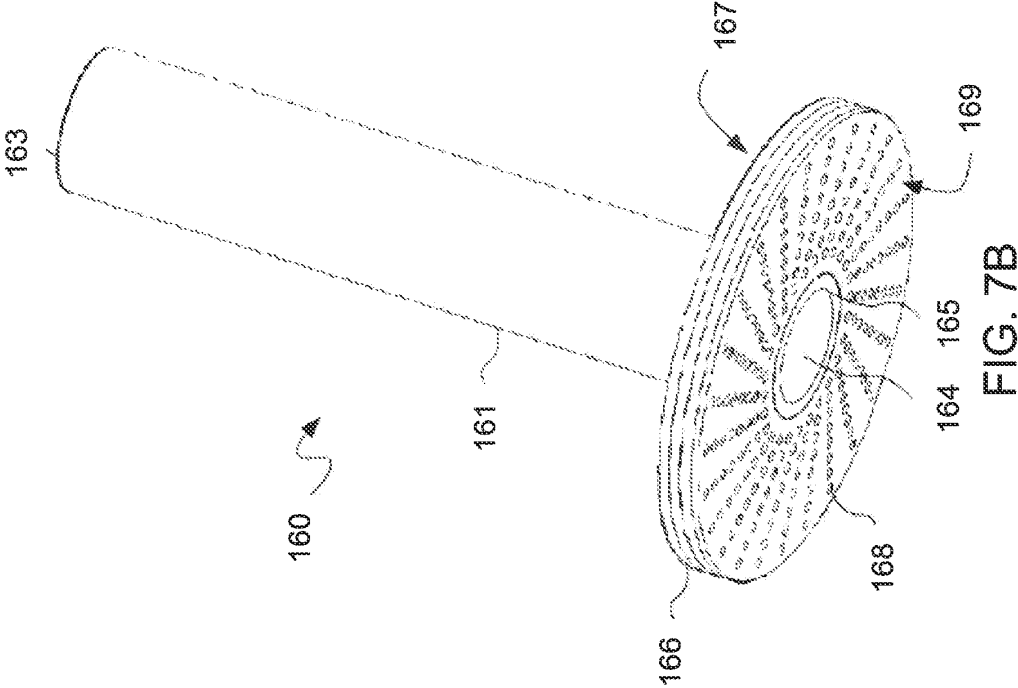


FIG. 7B

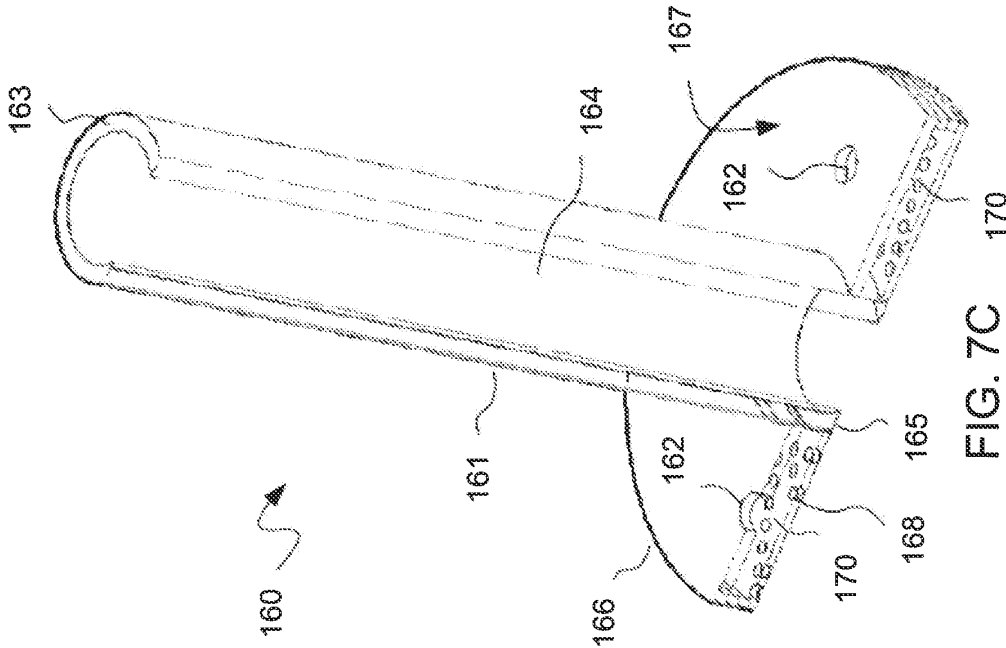


FIG. 7C

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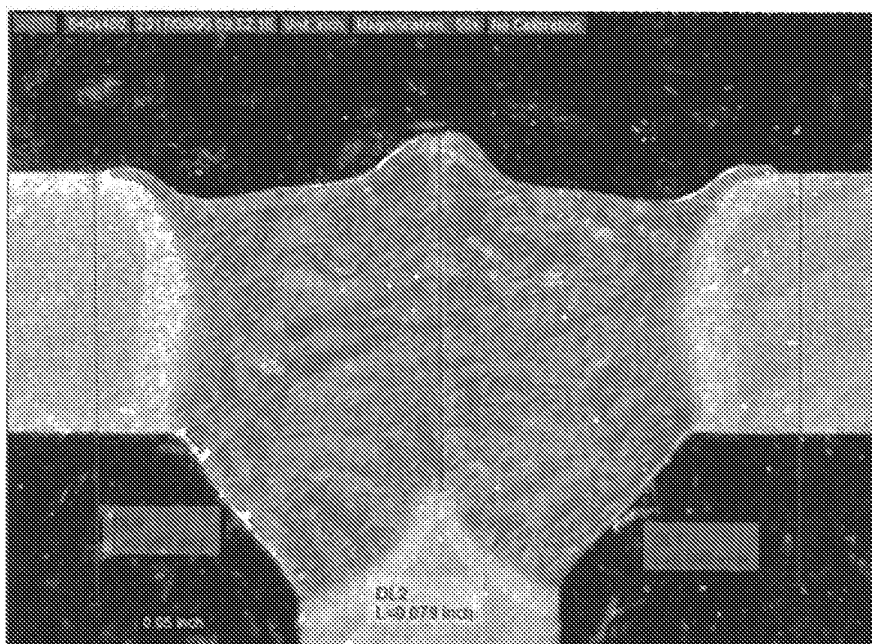


FIG. 8A

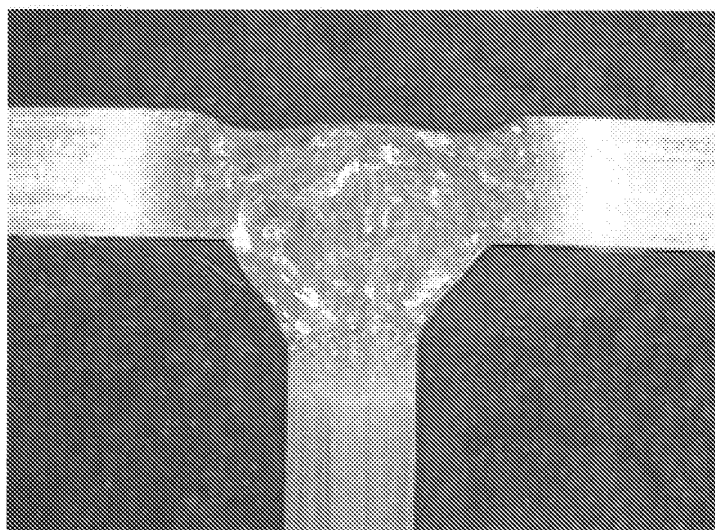


FIG. 8B

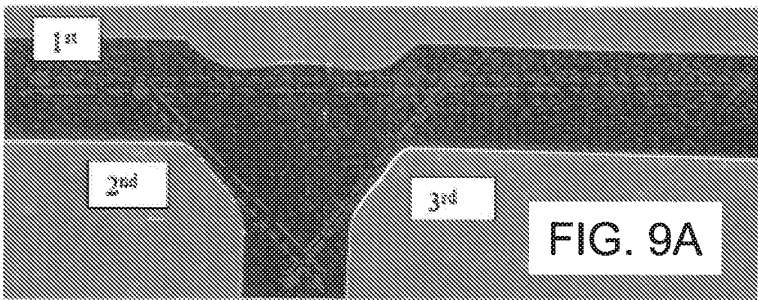


FIG. 9B

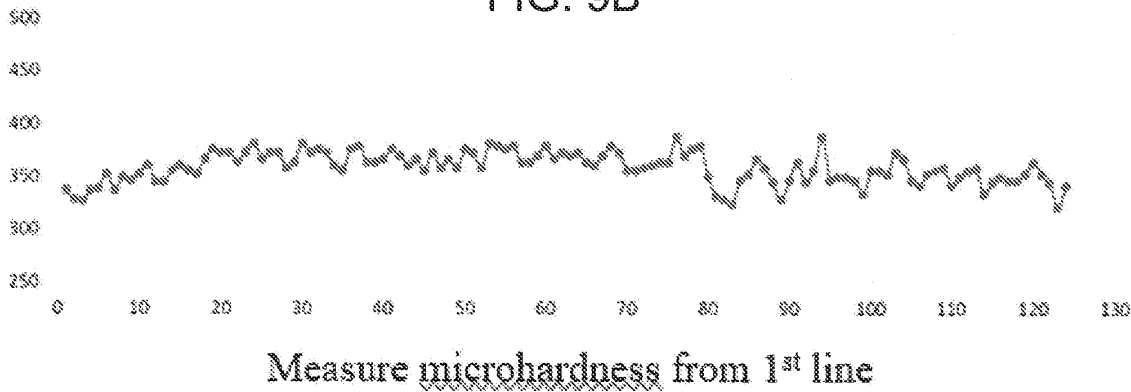


FIG. 9C

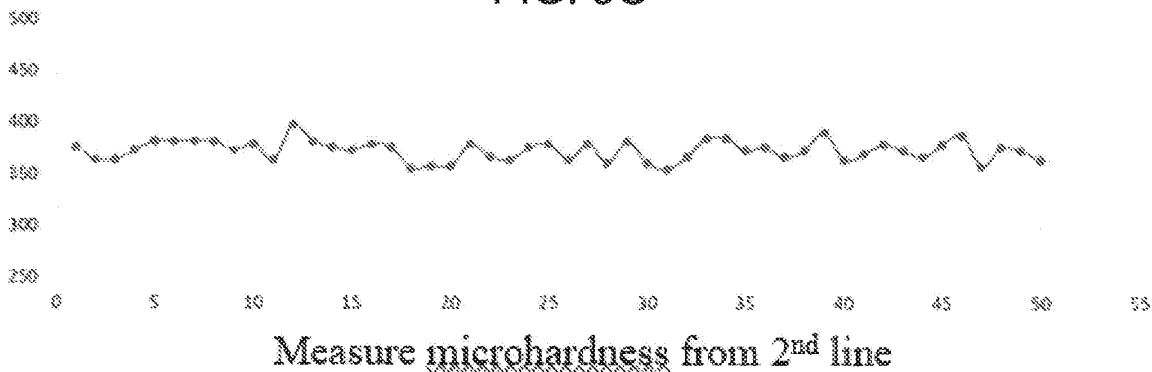
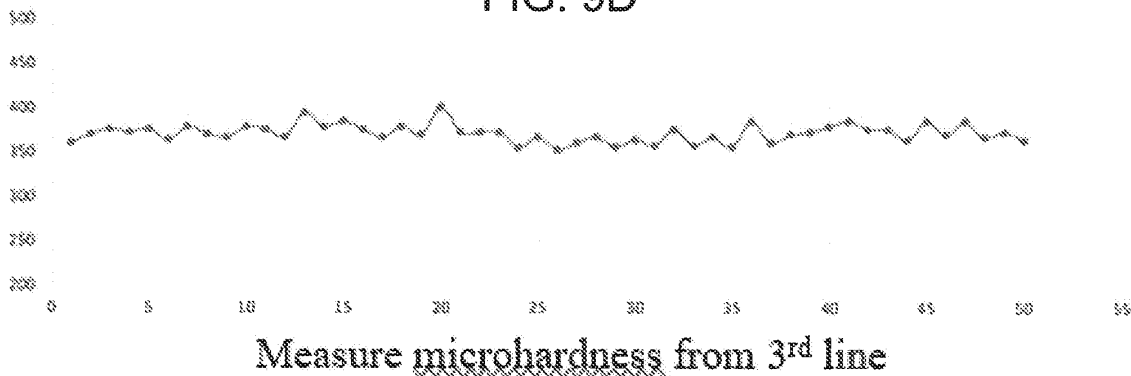
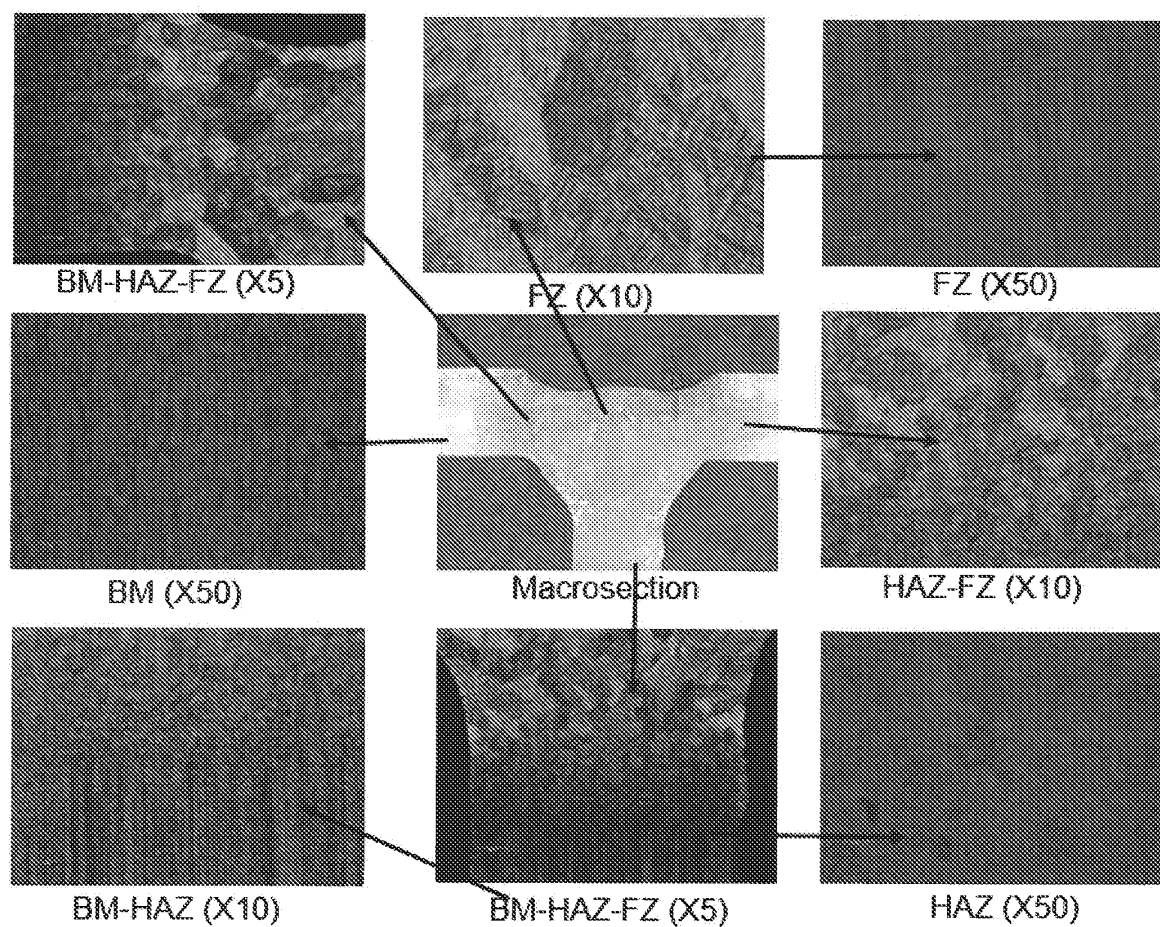


FIG. 9D



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BM – Base Metal
HAZ – Heat Affected Zone
FZ – Fusion Zone
(X5) – Scale magnification

FIG. 10

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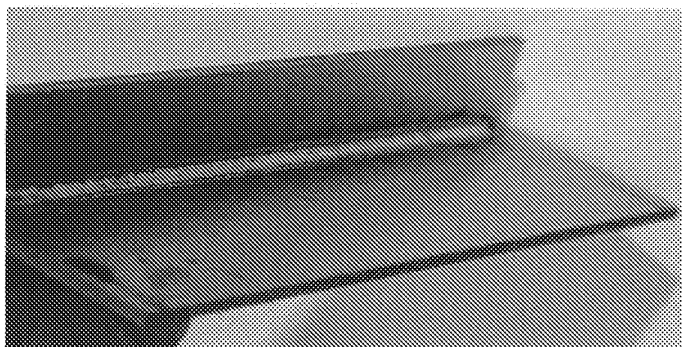


FIG. 11A

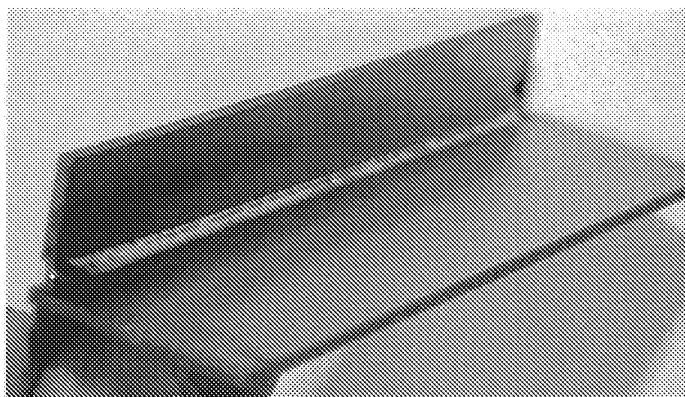


FIG. 11B

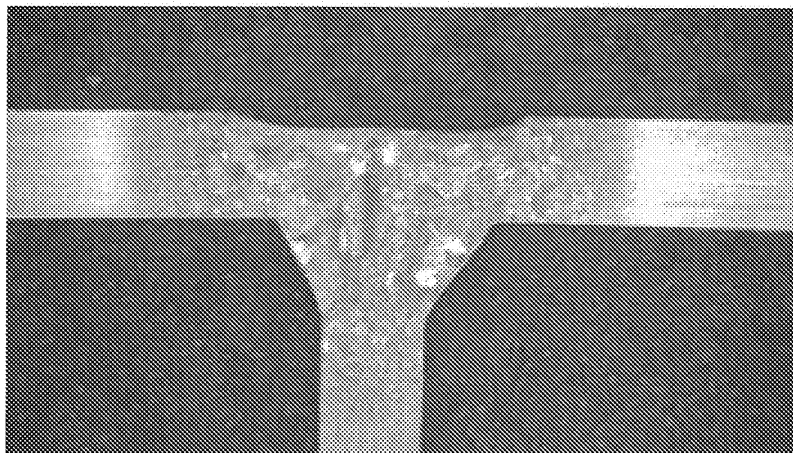


FIG. 12A

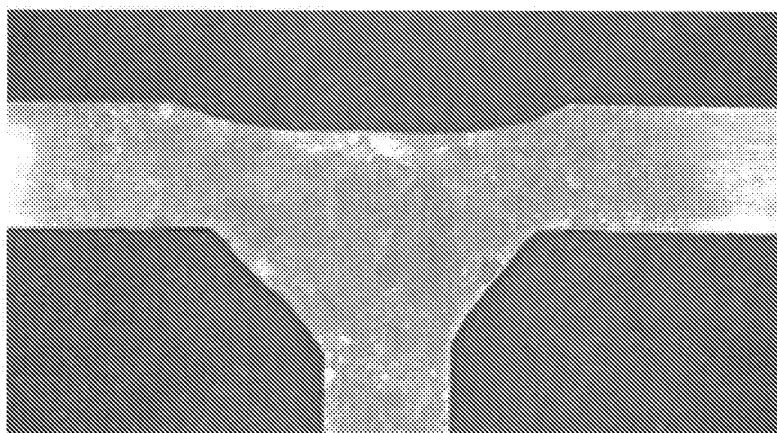


FIG. 12B

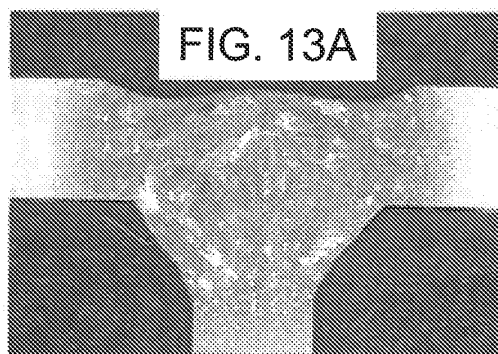


FIG. 13A

Fig 1. Weld# F1
Offset = 0 mm

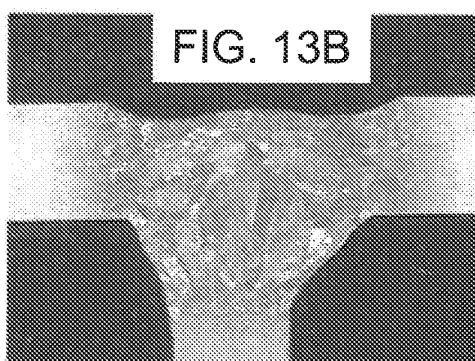


FIG. 13B

Fig 2. Weld# F1
Offset = 0.3 mm

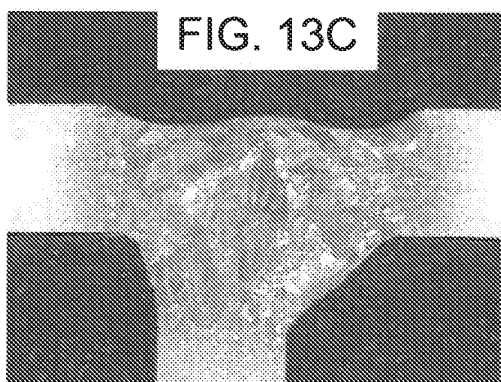


FIG. 13C

Fig 3. Weld# F1
Offset = 0.5 mm

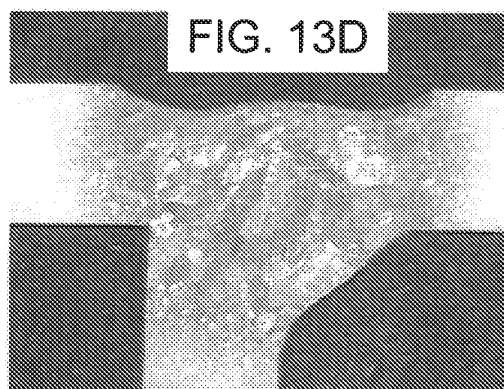
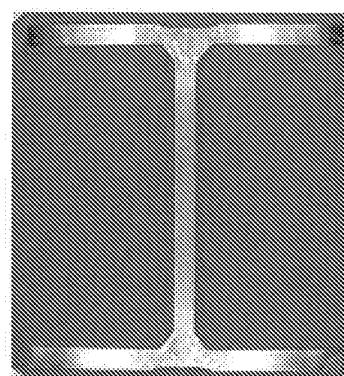
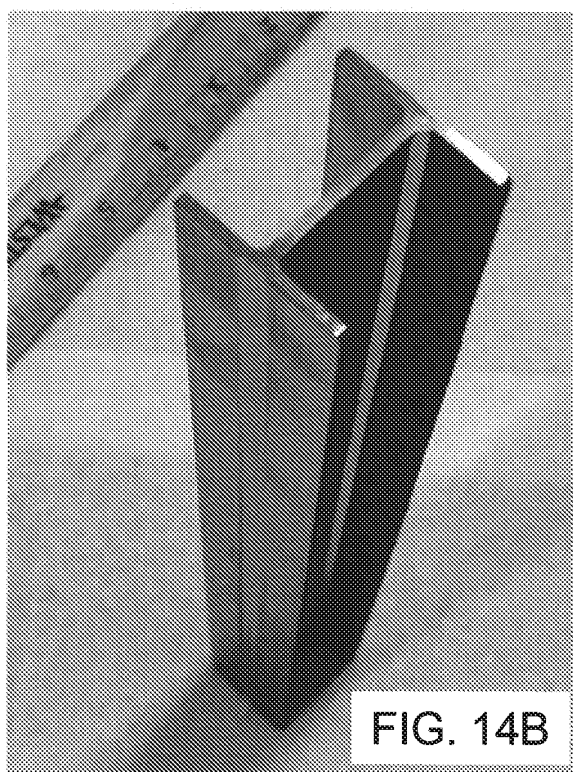
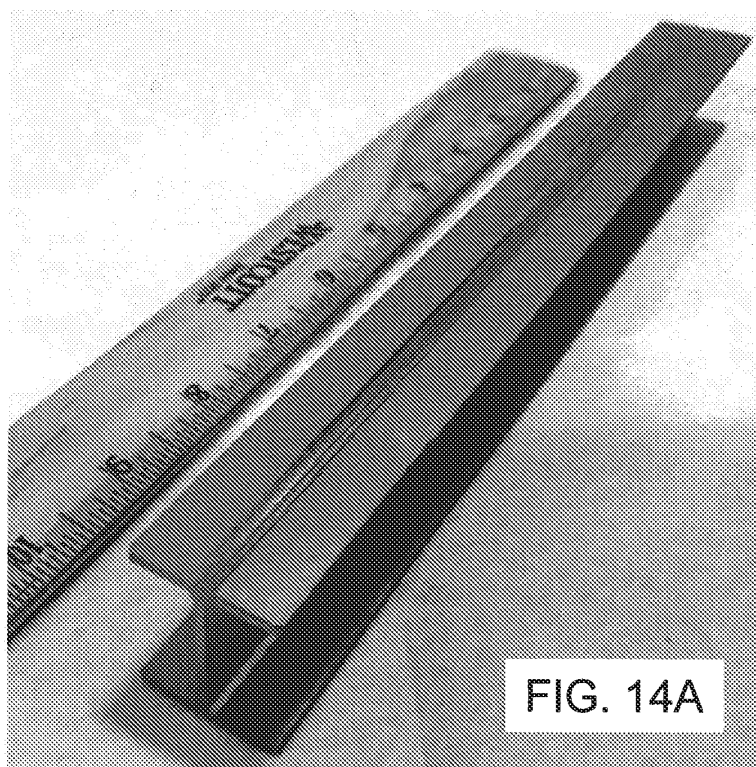


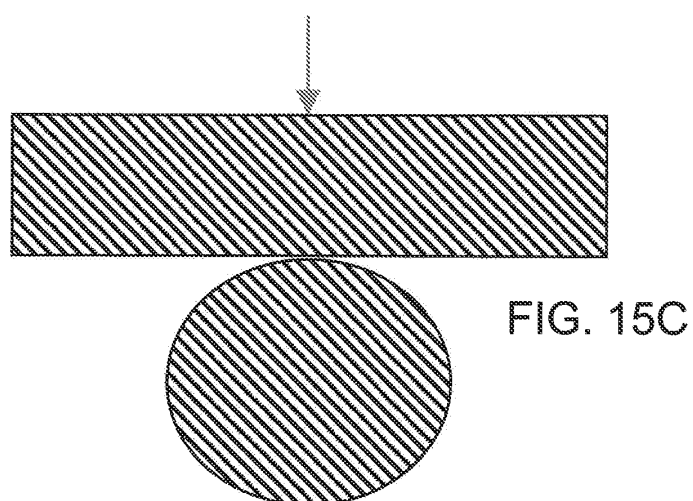
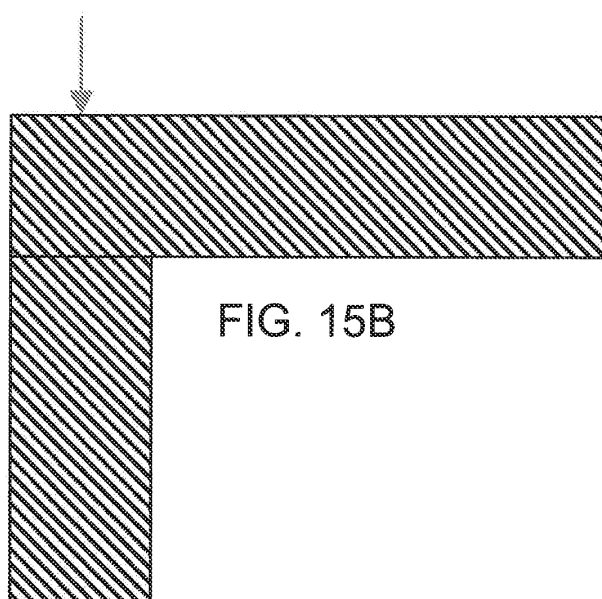
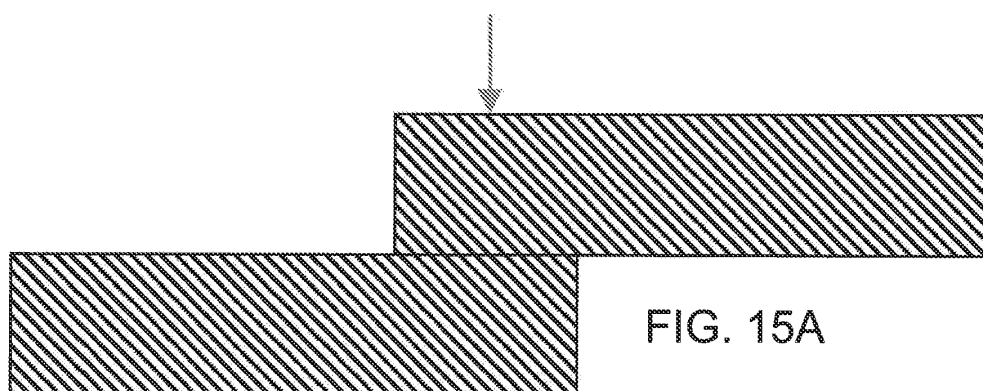
FIG. 13D

Fig 4. Weld# F1
Offset = 0.7 mm

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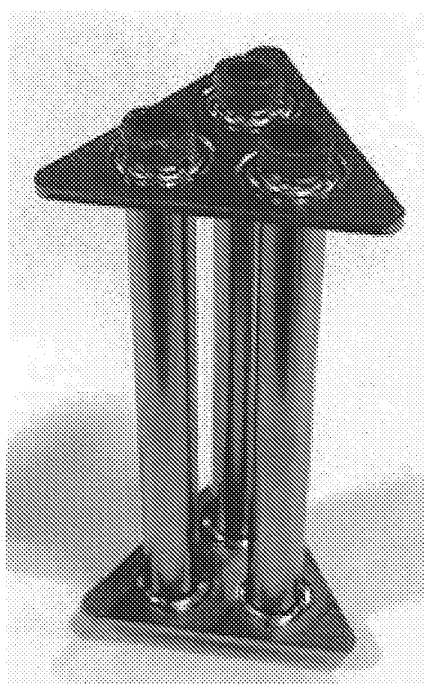


FIG. 16A

weld face

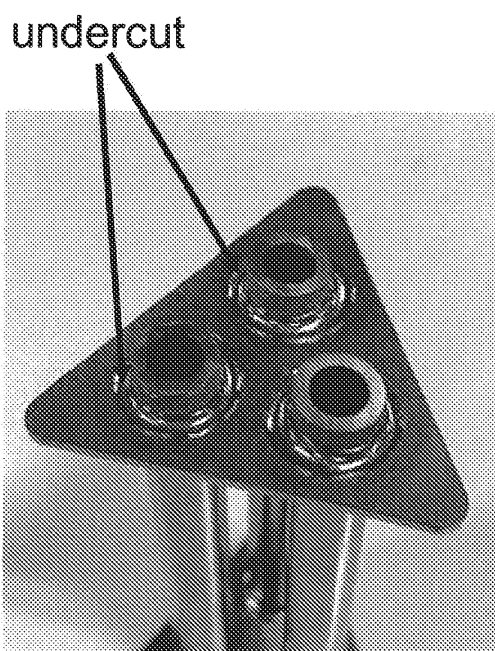


FIG. 16B

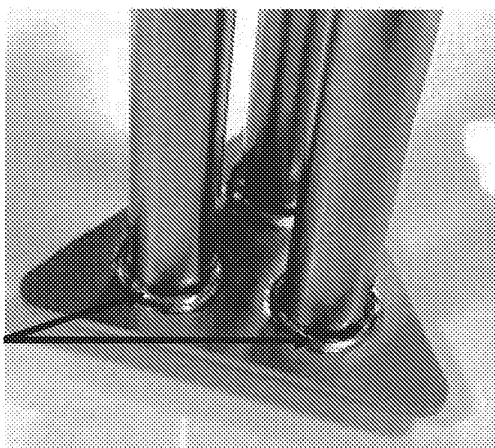


FIG. 16C

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