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(54) Title: METHODS FOR CLADDING A BASE MATERIAL VIA COMBINED LOCALIZED HEATING AND PLASTIC DEFORMATION

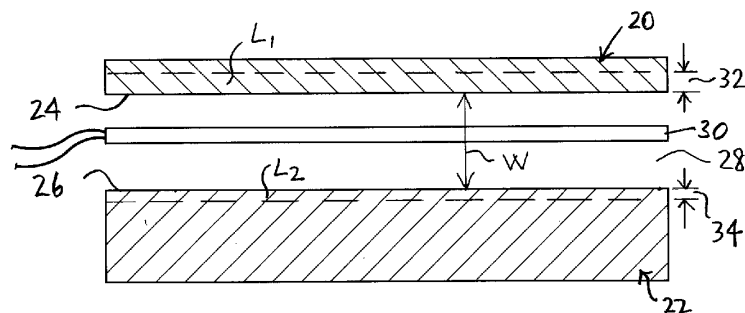


FIG. 1B

(57) Abstract: A method of attaching a cladding element to a base element. A first inner side of the cladding element is positioned spaced apart from a second inner side of the base element to define a slot therebetween, and one or more heating elements are located in the slot. A non-oxidizing atmosphere is provided in the slot, and the heating element is energized, to heat at least portions of the cladding element and the base element to a hot working temperature. While at the hot working temperature, the first and second inner sides are engaged with each other, and one or both are moved relative to the other, for plastic deformation of the first and second inner sides, to subject the portions of the cladding element and the base element to shear stresses. The portions are allowed to cool, for recrystallization thereof.



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