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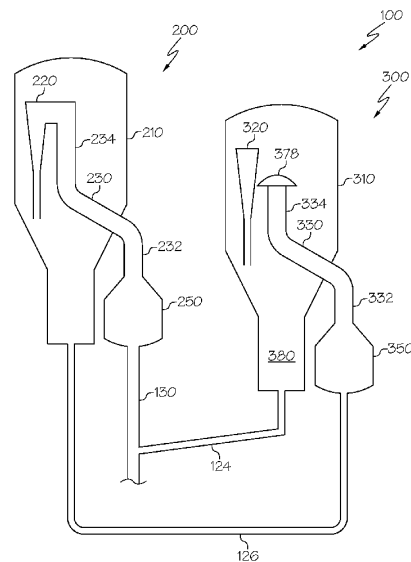


FIG. 1

(57) Abstract: According to one or more embodiments of the present disclosure, a riser may be operated by a method including repeatedly heating and cooling a riser between an operational temperature and a non-operational temperature. When the riser is heated from a non-operational temperature to an operational temperature, the riser undergoes thermal expansion. When the riser is cooled from an operational temperature to a non-operational temperature, the riser undergoes thermal contraction. The riser undergoes irreversible growth over repeated heating and cooling cycles, and the length of a lower section of an upper riser portion is sized to accommodate the irreversible growth from cycled thermal expansion of the riser.

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