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(54) Title: PROCESS AND A SYSTEM FOR HYDROCARBON STEAM CRACKING

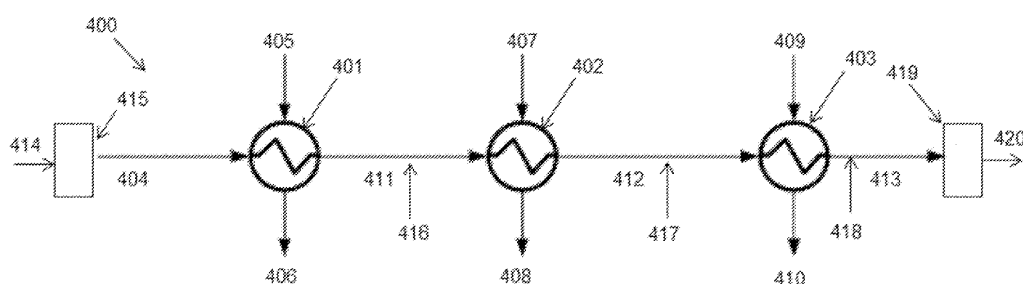


Fig. 4

(57) Abstract: A process for steam cracking hydrocarbon feedstock in a steam cracking furnace, the process comprising superheating hydrocarbon feedstock using flue gas from a radiant section of the steam cracking furnace in hydrocarbon feedstock superheating means or the hydrocarbon feedstock superheater, superheating steam from the steam generator using the flue gas from the radiant section of the steam cracking furnace in second heat exchanging means or a second heat exchanger, steam cracking the super-heated hydrocarbon feedstock from the hydrocarbon feedstock superheating means or the hydrocarbon feedstock superheater into cracked gas in a fired tubular reactor, vaporizing the hydrocarbon feedstock, using hydrocarbon feedstock vaporizing means, wherein the hydrocarbon feedstock vaporizing means or the hydrocarbon feedstock vaporizer are heated with a heat transfer medium having a temperature less than or equal to 350 °C and feeding the vaporized hydrocarbon feedstock to the steam cracking furnace.



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