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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

[Continued on next page]

(54) Title: METHODS AND APPARATUS FOR PRODUCING ALCOHOLS FROM SYNGAS

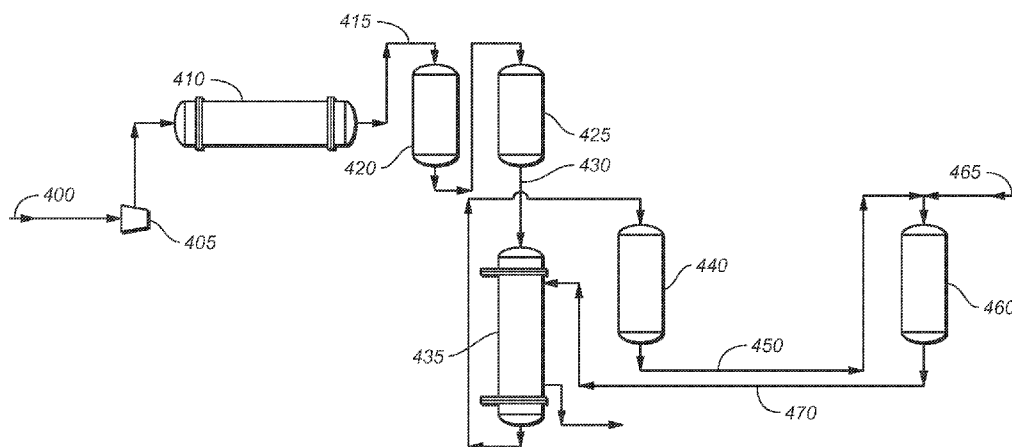


FIG. 4

(57) Abstract: Methods and apparatus for producing alcohols from syngas are disclosed herein. In some variations, syngas is catalytically converted to methanol in a first reaction zone, and residual syngas from the first reaction zone is then catalytically converted to ethanol in a second reaction zone. Also, in some variations, syngas is catalytically converted to methanol in high yield in a first reaction zone, and the methanol is then converted (optionally, with additional syngas) to ethanol in a second reaction zone.

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