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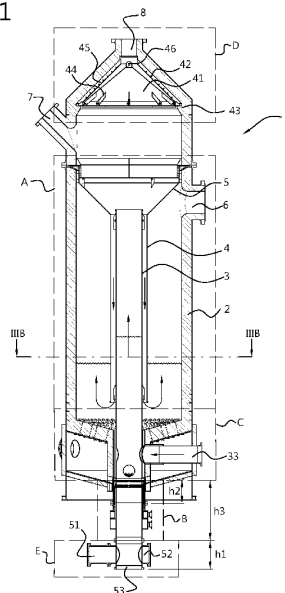
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(54) Title: REACTOR FOR PRODUCING A SYNTHESIS GAS FROM A FUEL

Fig. 1



(57) Abstract: A reactor for producing a synthesis gas from a fuel, with a housing (2) with a combustion part accommodating a first fluidized bed in operation, a riser (3) extending along a longitudinal direction of the reactor (1) and accommodating a second fluidized bed in operation, a down-comer (4) positioned parallel to the riser and extending into the first fluidized bed, and one or more feed channels (33) for providing the fuel to the reactor (1). The reactor (1) further has a riser air chamber section (B) connected to a lower part of the riser (3), the riser air chamber section (B) comprising a cylindrical wall (28) with a plurality of circumferentially located holes (24, 25).

[Continued on next page]

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