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 SHELL INT RES MIJ BV *EP -258-943-A
 29.08.86-GB-020994 (09.03.88) C01b-03/32 C10j-03/46
 Process and appts. for prodn. of synthesis gas - by partial combustion
 of carbon-contg. fuel, with cooling of slag by a quench gas
 C88-029411 R(DE GB IT NL)

H(9-C)

Process and appts. are claimed for the prodn. of synthesis gas by partial combustion of a carbon-contg. fuel with an oxygen-contg. gas. Synthesis gas is discharged through an outlet (3) in the bottom of a reactor (1), and is fed through a waste heat boiler (5) connected to and vertically below the reactor; slag (3b) is removed through the outlet (3) and passed by gravity through a slag discharge means (3a) extending inside or alongside the boiler (5) into a water bath (9) where it is further cooled by the water. The process is characterised by the supply of a quench medium to slag discharge means (3a), and contact therein of the medium with the slag leaving the reactor.

USE

The fuel may be solid, e.g. coal, peat, wood, coke or soot, liq. e.g. tar sand or shale oil, a mixt. of solids and

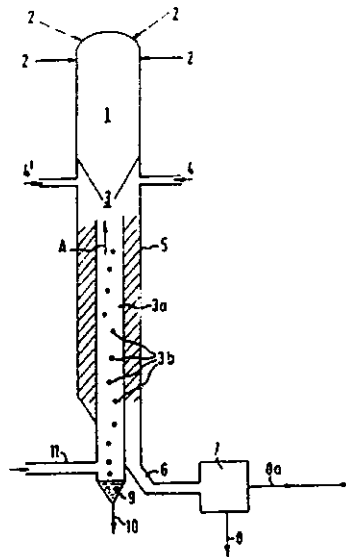
liq. or a hydrocarbon gas.

EMBODIMENT

The reactor is provided with burners (2). The quench medium is a gas, e.g. recycle gas or steam; it is fed by lines (4) and (4'), and esp. by line (11) to contact the slag countercurrently. The slag falls into water (9) which is boiling and produces steam (A) which supplements the quench gas. Boiler (5) contains conventional cooling means, e.g. coils or panels, represented by the shading. Product gas (6) is separated from entrained solids at (7) and dust-free gas recovered at by line (8a). Slag is removed by line (10). (5pp1644CGDwgNo1/1).

(E)ISR: No search Report.

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