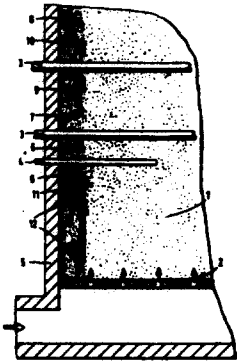


The invention provides a conveyer for receiving bed drain material from a coal-burning fluid bed combustor and consists of a jacketed water cooled casing in which is a helical flight for conveying said material, the flight being mounted on an outer tube which is supported by a bearing at one end only in cantilever fashion with its other end within the closed end of the water cooled tube, an inner water cooling tube being located within the outer tube for water to circulate through the inner tube and back through the outer tube.

4407355

### METHOD AND APPARATUS FOR DECREASING THE HEAT AND MATERIAL EXCHANGE IN THE DIRECT VICINITY OF THE WALLS OF FLUIDIZED BED REACTORS

Berhard Bonn, Franz Giertz, Lothar Holl, Heinz Schreckenber, Essen, Federal Republic Of Germany assigned to Bergwerksverband GmbH

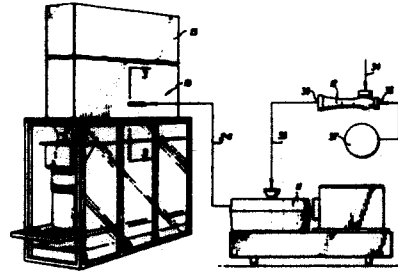


In a method for decreasing the heat, impulse and material exchange in the direct vicinity of the walls of fluidized bed reactors, the flow resistance to the fluid (agitating medium) conducted through the fluidized bed will be increased in the vicinity of the walls to such an extent that the fluidized bed does not do much agitating in this region; moreover the components sticking out of the interior walls of the reactor serve to extend the rib-shapes from the wall projecting into the reaction space or parallel to the reactor wall while forming a slit with the latter. The components can be pre-fabricated segments and the distance of the annular components in the direction of flow of the fluid should at most be about half as great as the height of the ribs lateral thereto.

4406410

### METHOD AND APPARATUS FOR ADDING AND MIXING SECOND COHESIVE POWDERS IN A FLUIDIZED BED BLENDER

Richard I Larson, Henry C Brassfield, John T Adomitis assigned to General Electric Company



A method and apparatus for the introduction of second cohesive powders into an improved fluidized bed blender containing UO<sub>2</sub> powder, and for blending such second cohesive powders with the UO<sub>2</sub> powder in the fluidized bed blender. The apparatus comprises an eductor, an improved pressurized vortec mill, a pneumatic conveying system that operates in turbulent flow, and an improved fluidized bed blender. The method and apparatus provide for injection and uniform dispersion of a second cohesive powdered ingredient or ingredients having hydrophobic, hydrophilic or hygroscopic properties in the fluid bed blender adjacent the bottom of the fluidized bed therein during the blending operation, thereby minimizing entrainment of the second powder mixture and providing a homogeneous blend of powders.

4406128

### COMBINED CYCLE POWER PLANT WITH CIRCULATING FLUIDIZED BED HEAT TRANSFER

John P Fanaritis, James S Davis assigned to Struthers-Wells Corporation

In a combined generating plant utilizing a fluidized bed combustor in which coal or other carbonaceous fuel is burned at substantially atmospheric pressure, an external heat transfer unit is provided through which a portion of the hot solids of the fluidized bed is circulated through tubular channels. Clean air from an air