

NEW PATENTS

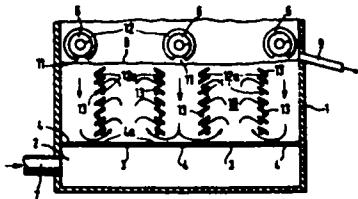
This Section contains abstracts and, where appropriate, illustrations of recently issued United States patents and published patent applications filed from over 30 countries under the Patent Cooperation Treaty. This information was obtained from recent additions to the Pergamon PATSEARCH® online database in accordance with interest profiles developed by the Editors. Further information about Pergamon PATSEARCH® can be obtained from Pergamon International Information Corporation, 1340 Old Chain Bridge Road, McLean, Virginia 22101 U.S.A.

Copies of complete patents announced in this Section are available from Pergamon International Information Corporation for \$8 per copy. Payment with order is required. Orders outside North America add \$2 for air postage. Order by patent number from Pergamon International only.

4425303

FLUIDIZED BED REACTOR FOR PARTICULATE MATERIAL

Hans-Diete Schilling, Ulrich Grabenhorst, Hattingen, Federal Republic Of Germany assigned to Bergwerksverband GmbH



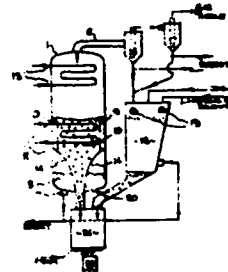
A method of treating a particulate material in a fluidized bed reactor includes supplying a particulate material into a working space above at least one zone which is characterized by reduced passage of a fluidizing gas. A fluidizing bed reactor is designed so that its means for supplying a particulate material is arranged above at least one zone of the reduced passage of the fluidizing gas. The passage of the fluidizing gas in this zone can be completely prevented. Jalousie-shaped inserts are arranged above edges of the zone and have inclined surfaces.

4424766

HYDRO/PRESSURIZED FLUIDIZED BED COMBUSTOR

Bede A Boyle, Newcastle, N S W 2300, Australia

A hydro-pressurized fluidized bed combustor having an upstanding shell and only a single

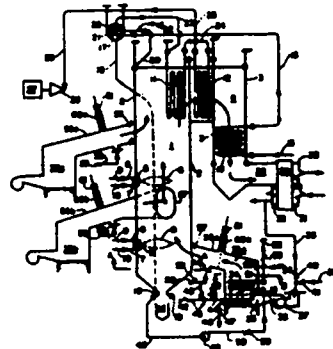


entry at its bottom for admission of feedstock. Inside the shell an entry conduit is outwardly flared in the upward direction to furnish a controlled expansion entry feeding into the fluidized bed. An injector pump feeds the feedstock into the single entry.

4424765

STEAM GENERATOR HAVING EXTERNAL FLUIDIZED BED COMBUSTION MEANS

Charles Strohmeyer assigned to Electrodyne Research Corporation



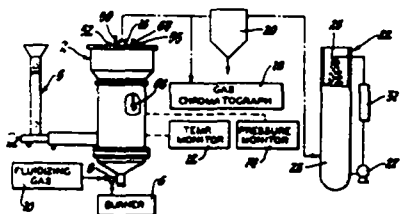
The invention provides a means for more effectively adapting fluidized bed combustors for

retrofit of existing boilers for burning of low grade inexpensive solid fuels. The operating discharge gas from a fluidized bed combustor is substantially lower in temperature from what exists at the furnace gas outlet of a conventional steam generator. Thus, outlet gas from fluidized bed combustors needs to be placed in the downstream gas path differently from conventional practice. The external combustors of the present invention permit placement of hot gas in the steam generator gas path where it can be effectively utilized. The invention also teaches how new steam generators can be configured advantageously to accommodate multiple fluidized bed combustors particularly as pertains to larger capacity steam generators in the 200 MW electrical and larger range.

4423688

BRUSH FEEDER FOR DISPOSAL OF THERMOPLASTIC WASTE IN A FLUIDIZED BED REACTOR

Hong-Hsiang Kuo assigned to General Motors Corporation

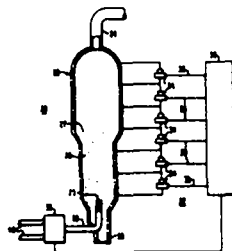


In accordance with the invention, a means and method are provided for continuously delivering thermoplastic particles to an operating fluidized bed reactor in which they are thermally degraded. Conveyor systems of the type used to feed non-melttable feedstocks to fluidized bed reactors were found to be unsuitable for the application. Accordingly, a novel device was developed in which polymer particles are conveyed to a reactor in a specialized feed tube. The tube features a brush-screw auger-type feeder and a source of pressurized gas to agitate the particles therein and prevent backflow of hot reactor fluids.

4421523

CONTROL OF BED HEIGHT IN A FLUIDIZED BED GASIFICATION SYSTEM

Gautam I Mehta, Lynn M Rogers assigned to The United States of America as represented by the Department of Energy

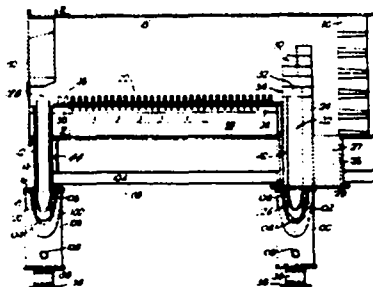


In a fluidized bed apparatus a method for controlling the height of the fluidized bed, taking into account variations in the density of the bed. The method comprises taking simultaneous differential pressure measurements at different vertical elevations within the vessel, averaging the differential pressures, determining an average fluidized bed density, then periodically calculating a weighting factor. The weighting factor is used in the determination of the actual bed height which is used in controlling the fluidizing means.

4421063

FLUIDIZED BED COMBUSTION APPARATUS

Ronald B Stuart, Alan G Troup, Dalbeattie, United Kingdom assigned to Northern Engineering Industries plc



A boiler or other fluidized bed apparatus has an outlet from the bed and an outlet from the gas stream downstream of the bed for removing