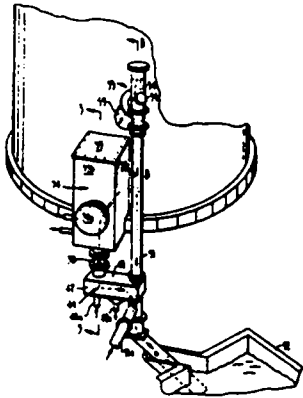


material from the bed and from the gas stream. The material removed is passed to screening mechanism which separates materials into relatively larger particles and relatively smaller particles. The smaller particles are fed by conveyor to means feeding the bed. The larger particles are mainly ash which is discarded. Removal of material from the bed under load is provided for.

4421038

### METHOD AND APPARATUS FOR REMOVING FOREIGN OBJECTS FROM FLUID BED SYSTEMS

Gary O Goldbach, Michael A O'Hagan assigned to Combustion Power Company Inc

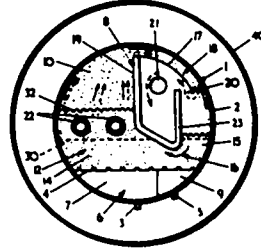


A foreign object removal system is disclosed including a removal chamber projecting laterally from the combustion chamber of a fluid bed reactor and connected via a downwardly directed pipe to a material flow control plenum chamber which includes means for fluidizing the mixture of inert fluid bed particles and foreign objects at the bottom of the pipe for lateral movement into an air classifier wherein the foreign objects are dropped to a collection tank and the fluid bed particles are carried upwardly by a stream of classifying air to a deentrainment chamber where their velocity is reduced and they are returned to the combustion chamber.

4419966

### FLUIDIZED BED COMBUSTION

Francis J Jenkins, Michael J Jenkins, Wolverhampton, United Kingdom assigned to EMS Thermpant Limited

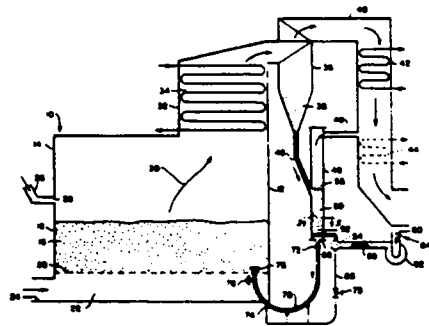


A fluidized combustion bed is divided by a hollow baffle into two regions which are fluidized at respectively higher and lower fluidizing velocities. Exhaust gases and elutriated particles leaving the larger region pass into the freeboard and around the baffle, the particles being deposited after such passage into the smaller region and the gases flowing into the baffle for exhaust.

4419965

### FLUIDIZED REINJECTION OF CARRYOVER IN A FLUIDIZED BED COMBUSTOR

Juan Garcia-Mallol, Michael G Alliston assigned to Foster Wheeler Energy Corporation



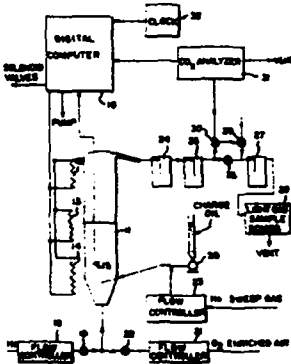
A system for the fluidized reinjection of fine particles (carryover) into a fluidized bed combustor. The carryover recirculation system includes a fluidized reinjection bed which is fluidized using

clean gas from the induced draft fan outlet boosted by a small auxiliary fan. The fluidized fine particles can be reinjected into the fluidized combustor bed by either dense phase transport or by dilute phase transport.

4419328

### CONTROLLED FLUIDIZED BED REACTOR FOR TESTING CATALYSTS

Dennis E Walsh assigned to Mobil Oil Corporation



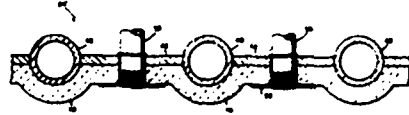
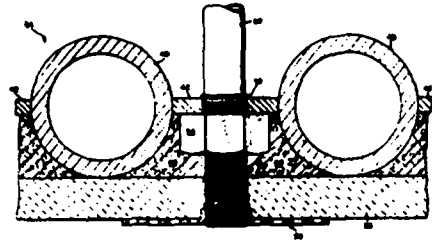
Apparatus for investigating the performance of a catalyst used in a catalytic cracking process includes a single fluidized bed reactor charged with the catalyst to be investigated and a digital computer which controls the supply of hydrocarbon feed stock and regenerating air in successive and repeated catalytic cracking intervals and catalyst regeneration intervals.

4418650

### FLUIDIZED BED HEAT EXCHANGER HAVING AN INSULATED FLUID COOLED AIR DISTRIBUTOR PLATE ASSEMBLY

Richard C Johnson, Venkatraman Seshamani, Leigh B Egbert assigned to Foster Wheeler Energy Corporation

A fluidized bed heat exchanger in which an air distributor plate assembly is disposed within an enclosure for supporting a bed of particulate

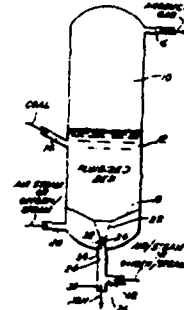


material. The plate assembly includes a plurality of horizontal, spaced tubes through which water is passed to cool the assembly. Air is passed from an air plenum through openings formed in the plate assembly to fluidize the particulate material. Insulation is disposed on the lower surface of the plate assembly to insulate the latter from the heat of the fluidizing air, and the upper surface of the plate assembly is insulated from the high temperatures occurring in the bed.

4416857

### FLUIDIZED BED GASIFIER OR SIMILAR DEVICE FOR SIMULTANEOUS CLASSIFICATION OF ASH AND UNREACTED COAL

Karl Vorres assigned to Institute of Gas Technology



An apparatus for withdrawing agglomerated solids, e.g. ash, from a fluidized bed of finely divided solid hydrocarbonaceous material, e.g. coal, is described. Agglomeration is effected by a high temperature reaction between the inorganic