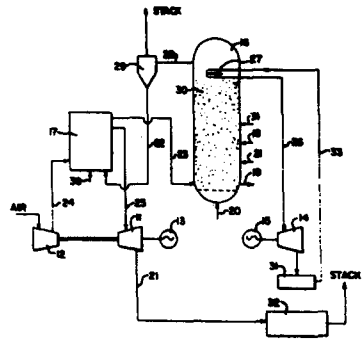


compressor is passed through the heat exchanger unit around the outside of the tubular channels, so receiving heat through them from the hot solids circulating therethrough, and is expanded in a gas turbine. The flow of hot solids through the tubular channels is controlled independently of the operation of the combustor so as to accomodate varying loads on the generating units. Steam for a other uses is generated by a conventional boiler and superheater in the combustor.

4405561

DRAIN AND SAMPLING VALVE ASSEMBLY FOR A FLUIDIZED BED REACTOR

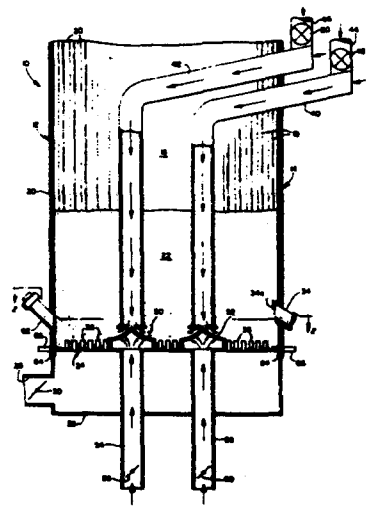
Thomas J Neale, Frederick C Alverson, John S Karg assigned to Foster Wheeler Energy Corporation

A drain and sampling valve assembly for a fluidized bed reactor in which a pipe extends from the fluidized bed supporting structure to a location externally of said reactor. A valve seat is supported by said supporting structure and a valve stem is disposed in the pipe and extends for the length of the pipe and has a valve head mounted at one end of the stem for cooperating with the valve seat. A mechanical actuator assembly is provided externally of said reactor for selectively moving the stem relative to the pipe and the movement of the valve head relative to the valve seat to control the flow of material from the fluidized bed into the pipe. A discharge pipe and a sampling valve cooperate with the other end of the first mentioned pipe for selectively controlling the discharge of material from said latter pipe for permitting samples to be taken.

4404755

FLUIDIZED BED HEAT EXCHANGER UTILIZING INDUCED DIFFUSION AND CIRCULATION

Robert Stewart, Robert Gamble assigned to Foster Wheeler Energy Corporation



A fluidized bed heat exchanger in which a perforated plate is disposed within a housing for supporting a bed of particulate material. Air is passed through the plate to fluidize the particulate material and a mixture of air and additional particulate material is introduced to said bed and deflected into said bed in a manner to induce diffusion and circulation of the bed materials in the bed.

4404083

FLUID BED RETORTING PROCESS AND SYSTEM

Iacovos Vasalos assigned to Standard Oil Company(Indiana)

A fluid bed process and system for retorting hydrocarbon-containing material, such as oil shale, coal and tar sand, in which hydrocarbon-containing material and heat carrier material are fed into a mixing chamber, mixed and rapidly transported upwardly by a lift gas through a lift pipe into a solids-containing vessel to retort the hydrocarbon-containing material with minimal