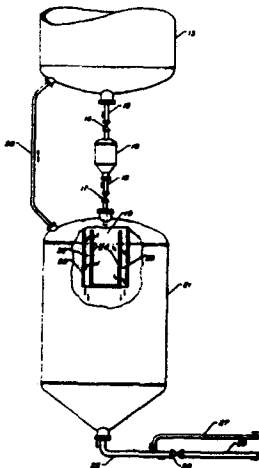


thermal cracking of the liberated hydrocarbons to increase the recovery of condensable hydrocarbons. The retorted material can be conveyed to a dilute phase lift pipe and combustor vessel where carbon residue in the retorted material is combusted leaving hot spent material that can be fed into the mixing chamber as heat carrier material.

4403909

METHOD FOR DISCHARGING CATALYST PARTICLES FROM A MOVING BED SYSTEM AT A SUBSTANTIALLY STEADY FLOW RATE

Arthur R Greenwood assigned to UOP Inc

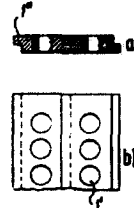


A method for discharging a periodic flow of a measured volume of hot regenerated catalyst particles from a moving bed regeneration system into a catalyst hopper at a substantially steady particle flow rate thus eliminating pressure surges in the hopper.

4402143

BOTTOM FOR FLUIDIZED BED

Peter Schulz, Knut Vaupel, Jurgen Klein, Essen, Federal Republic Of Germany assigned to Bergwerksverband GmbH

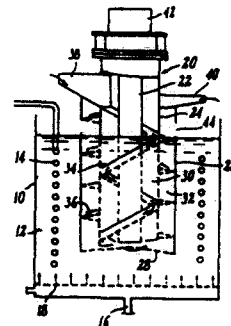


A bottom for a fluidized bed conveyor is composed of a plurality of members provided with openings and located in contact with each other so that their points of contact are gas impermeable at least during operation of a fluidized bed. The openings may be formed as circumferentially closed holes and/or as laterally open recesses. The members may laterally abut against each other, or may be provided with interengaging lateral projections. The members may be located so that at cold temperatures small intermediate spaces remain therebetween, which spaces are closed during operation as a result of thermal expansion of the members under the action of high working temperatures. Bracing element or elements may be provided which urge the members toward one another.

4399984

AUTOMATIC INSTALLATION FOR THE HEAT TREATMENT OF WORKPIECES IN FLUIDIZED BEDS

Jean-Claude Bouchon, Poissy, France assigned to Midland-Ross Corporation



Workpieces are heat treated in a fluidized bed contained within a vessel having a central well surrounded by helical ramps along which the

workpieces move into and out of the bed. A perforated platform connects the ramp and movement of the workpieces along the discharge ramp is achieved by vibrating such ramp.

4399047

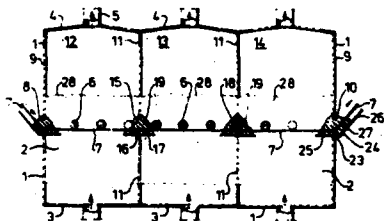
COMPOSITION FOR USE IN A MAGNETICALLY FLUIDIZED BED

Robert L Seiver, Martin O Gernand assigned to
Exxon Research and Engineering Co

4399618

METHOD OF SEALING A FLUIDIZED BED AND DEVICE FOR CARRYING OUT THE METHOD

Hans Rydstad, CH 5413 Birmenstorf, Switzer-
land



A method and a device, FIG. 1, for sealing an opening (15, 8, 10) between two zones in a fluidized bed and/or between the bed and its surrounding (22). In the bed particles (2) are intended to be maintained suspended by means of a carrier gas, which is introduced in the bottom (3) of the bed below the level of said opening (15, 8, 10). Through said opening (15, 8, 10) primarily workpieces (66) intended to be treated in the bed are intended to pass, which opening (15, 8, 10) is, for example, a horizontal gap in a vertical partition wall (11, 9) between the zones (12, 13, 14) or between the bed and its surrounding (22). The method according to the invention is characterized in that a heap (19, 27) or several heaps (19, 27) of particles (2), by utilizing the movements of the particles (2) and carrier gas in the bed, are caused to be built up at said opening (15, 8, 10) to such a height that the opening (15, 8, 10) is covered or substantially covered by the heap/heaps (19, 27) of particles (2). Workpieces (6) during their passage through the opening (15, 8, 10), and therewith through the sealing, demolish the heap/heaps (19, 27), whereafter said heap/heaps (19, 27) are built up again during and/or after the passage of the workpieces (6).

A composition which exhibits high induced magnetism in a small applied magnetic field when formed into a magnetically stabilized fluidized bed and which comprises particles containing a nonferromagnetic component, or components, composited with a plurality of elongated ferromagnetic components, randomly oriented and present in each of said particles in relatively low concentration, based on the total volume of the particles; a process for formation of said compositions and a process wherein such composite particles are formed into a magnetically stabilized fluidized bed and contacted with a fluid, preferably gas.

4397964

PROCESS USING FLUIDIZED BED CATALYST

John K Pargeter, Umar M U Ahmad assigned to
The International Nickel Company Inc

An unsupported particulate catalyst especially useful for methanation reactions is prepared by a method comprising fluid-bed roasting agglomerates of nickel sulfide to form a particulate precursor material which can be reduced to composite particles consisting essentially of a nickel-oxide core with a then coherent adherent layer of nickel thereon, the reduced particles being characterized at the surface by the presence of microcapillary pores interconnecting with each other and the outer surface of the particles.