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.

4399618

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

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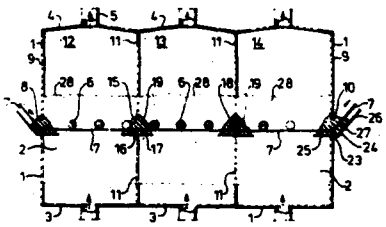

A method and a device, FIG. 1, for sealing an opening (15, 8, 10) between two zones in a fluidized bed and/or between the bed and its surrounding (22). In the bed particles (2) are intended to be maintained suspended by means of a carrier gas, which is introduced in the bottom (3) of the bed below the level of aid 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).

4399047

COMPOSITION FOR USE IN A MAGNETICALLY FLUIDIZED BED

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

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.