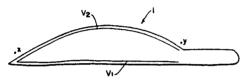
ii New Patents

from both streams is combined, and being still wet with solvent, is subjected to steam stripping, yielding solvent vapor. The hot vapors which result are first used to preheat the feed slurry followed by condensation and separation of solvent, which is recycled into the system, and water. Heat is also recuperated from the spent sand to preheat the feed slurry.

#### 4423735

# DYNAMIC ORTHOTIC DEVICE CONTAINING FLUID

John E Comparetto

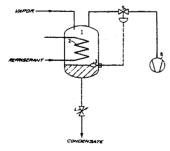


An orthotic apparatus to help resuppinate the foot after the initial contact phase of gait. The device consisting of a flexible envelope containing a fluid with a cambered upper surface to flex upwardly upon the generation of a fluid wave along the longitudinal axis of the foot.

#### 4423766

## VACUUM CONDENSATION APPARATUS

Karl-Hein Bernhardt, Helmut Strzala, Braunfels, Federal Republic Of Germany assigned to Arthur Pfeiffer Vakuumtechnik Wetzlar GmbH

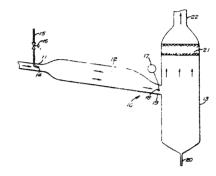


Apparatus for condensing vapors at reduced pressure including a cooled vapor condenser having a liquid level sensor therein with a vacuum pump being connected by way of a control valve for drawing vapor from the vapor chamber of the condenser. The liquid level sensor opens and closes the control valve to control drawing of vapor from the vapor chamber in accordance with the level of liquid in the condenser.

#### 4424680

# INEXPENSIVE METHOD OF RECOVERING CONDENSABLE VAPORS WITH A LIQUIFIED INERT GAS

Ronald D Rothchild

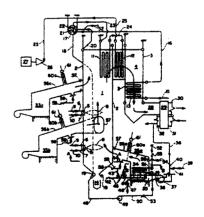


Method and apparatus for recovering, as liquid, condensable vapor contained in a gas stream by refrigerating the gas stream by injecting the liquified phase of an inert gas, such as nitrogen, mixing the combined gas stream and liquified inert has, and separating the condensed condensable vapor from the remaining gas stream and inert gas.

#### 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

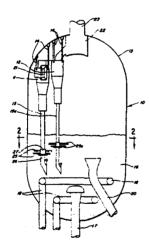
New Patents iii

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.

### 4426212

# BRACING ASSEMBLY FOR CYCLONE DIPLEGS IN FLUIDIZED BED UNITS

Harold D Zacher assigned to Standard Oil Company (Indiana)

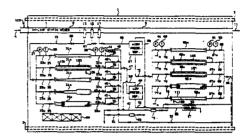


A bracing assembly for use in fluidized bed units having a number of cyclone separators equipped with diplegs is disclosed. The assembly comprises paired brace elements interconnecting adjacent diplegs to form a closed polygon whereby each dipleg in the polygon supports the others to eliminate sway or movement of the diplegs. The method of attachment of the brace elements is such as to accommodate large temperature differentials within the unit during operation and also between operation and shutdown without the creation of abnormal stresses. The assembly is particularly useful in the regenerator vessels of fluid catalytic cracking units.

### 4426880

# METHOD AND APPARATUS FOR FLUID SAMPLING AND TESTING

John P Walters, Radomi Petrovich, Gregory C Daley, Donald C Harban assigned to Phillips Petroleum Company

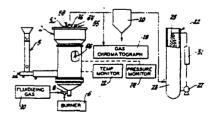


An apparatus for preparing and testing fluid samples in which a two-phase fluid mixture passes through equipment for homogenizing the mixture with at least one isokinetic sampling device arranged to remove portions of the homogenized fluid mixture, with the portions then being passed through testing equipment. Preferably, geothermal fluid is homogenized and samples are withdrawn by the isokinetic sampling device and tested for various properties of the fluid, particularly the formation of scale. The testing apparatus is adapted for on-site operation.

#### 4426936

# METHOD AND APPARATUS FOR DISPOSAL OF THERMOPLASTIC WASTE IN A FLUIDIZED BED REACTOR

Hong-Hsiang Kuo assigned to General Motors Corporation



A fluidized bed reactor suitable for burning polymeric waste material, particularly thermoplastics, has been developed as well as a method of using it. The reactor comprises a chamber for retaining a fluidized bed of refractory particles and burning the polymer therein. A specially adapted diffuser plate located at the bottom of