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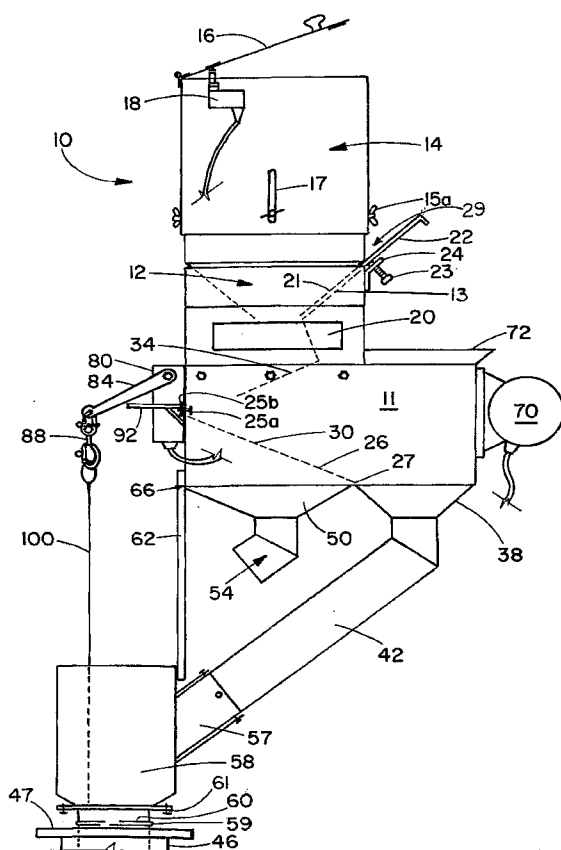
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(54) Title: PROVIDING AUTOMATED DELIVERY OF CATALYST AND/OR PARTICULATE TO ANY FILLING SYSTEM DEVICE USED TO FILL TUBES



(57) Abstract: Automation of the delivery of a particulate to a tube contained in a reformer type heater with vertical tubes is disclosed and includes a hopper having an opening at the lower end. A slide gate is mounted on the hopper and selectively projects over the opening in the hopper. A box mounted below the hopper. A primary ramp is mounted in the box and underlaps the opening in the hopper. The primary ramp has an angle of inclination and extends to a lower end of the box. The primary ramp also has a screen. A cone is connected to the box proximate to one end of the primary ramp and a tube is connected to the lower end of the cone for conveying particulate to a tube loading adaptor. A dust collection cone is connected to the box underlapping the primary ramp and a discharge port is connected to the lower end of the dust collection cone. The tube loading adaptor is positioned for connection to the tube in the reformer type heater with vertical tubes. A vibrator is connected to the box.

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