



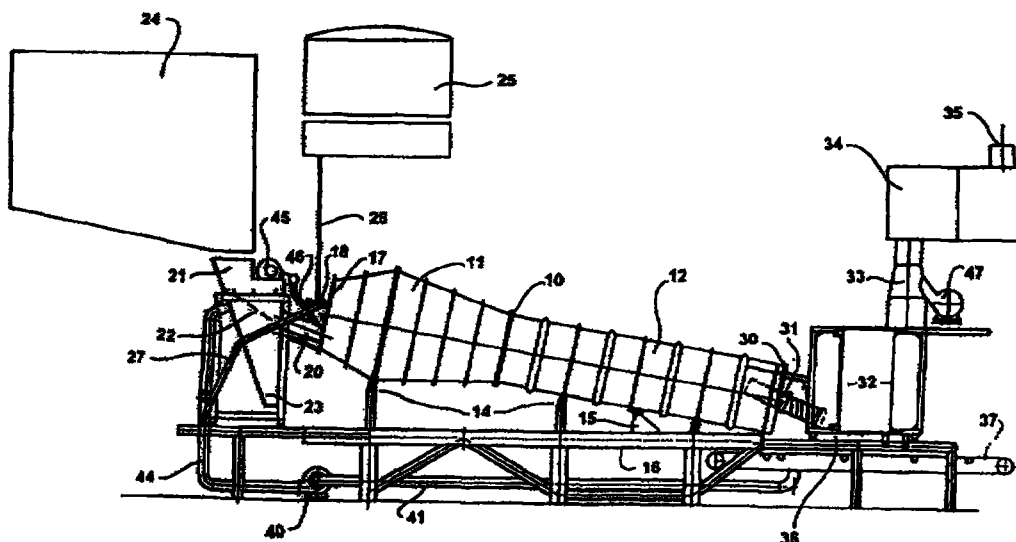
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(54) Title: **METHOD AND APPARATUS FOR WASTE TREATMENT**



(57) Abstract

There is provided a method of waste treatment comprising mixing waste material with a binder, pelletizing the mixture and kiln incineration (10) of the pellets to ceramify same, with processing of the flue gases. The pH of the waste mix is maintained alkaline. Pelletized material is coated with ball clay to 10-20 % by weight, and then with china clay, prior to firing. The high temperature flue gases and entrained heavy metals or dust exhausting the kiln (10) are directed through a multistage scrubbing system (34) including waste heat recovery boiler (32), particulate recovery and recycling, and a quench tower (34). Volatiles are adsorbed prior to the gas passing through an alkali wet scrubbing (34) to remove chlorine compounds and heavy metals, and sulphur compounds, respectively. The sludge from the acid scrubber is neutralised and further treated to remove mercury. The alkali scrubber (34) is maintained alkaline. Sulphur is precipitated out and recovered as gypsum. Treated sludges are returned to the process.