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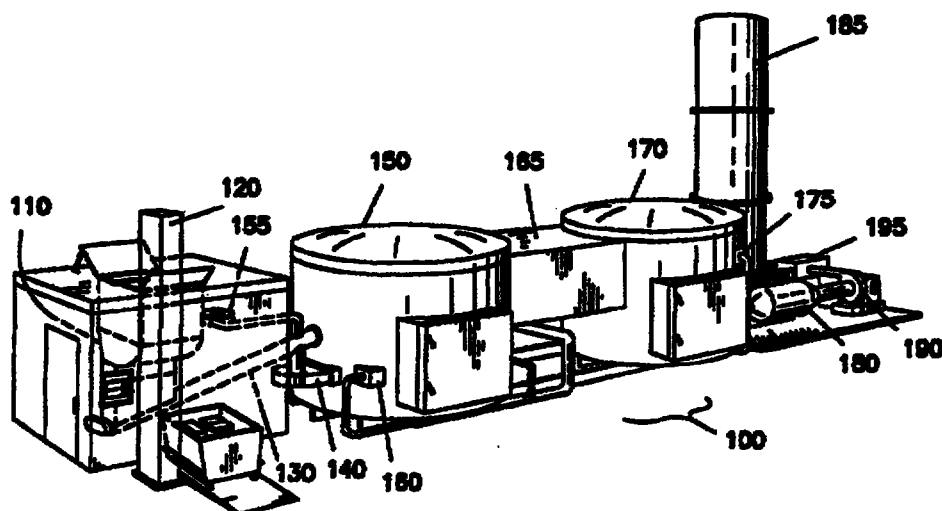


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(54) Title: **SOLID WASTE INCINERATION IN OXYGEN-RICH ENVIRONMENT**



(57) Abstract

A method and system for continuous incineration of solid waste, directed to reducing formation of pathogens (such as dioxins) during incineration by inducing rapid combustion in an oxygen-rich environment. Waste may be shredded first. Waste is then dispersed widely across a first combustion chamber (150) in which it undergoes incineration into ash and gas. Alternative embodiments for continuous removal of hot ash are disclosed. Gas is encouraged to travel a spiral path into a second combustion chamber (170), in which further incineration occurs. Gas travels through the second combustion chamber (170) also in a spiral path, and is cooled in a quench tube (180). An evacuator means (190), advantageously a large fan, draws air through the system continuously during combustion encouraging flow of waste through the system and replenishing oxygen available for rapid combustion.