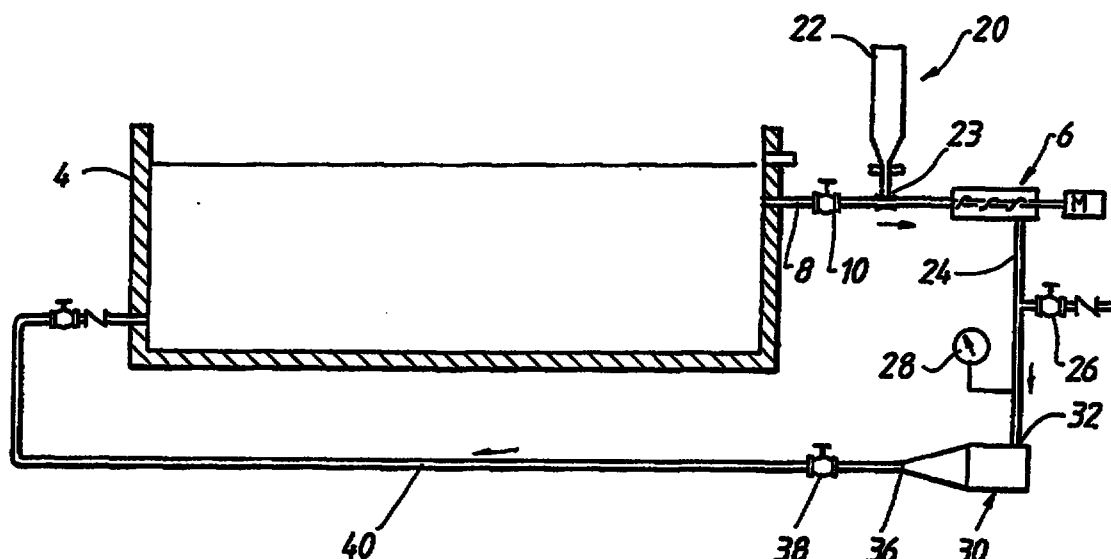




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(54) Title: MIXING APPARATUS



(57) Abstract

A method and apparatus for mixing a first material and a second material is described in which the first material comprises a mixture of two or more dissimilar components which it is desired to separate. The method and apparatus involve forming an intimate mixture of the two materials prior to separating the two dissimilar components of the first material. The apparatus involves the use of a hydrocyclone for aerating or gasifying a feed stream, such as waste water containing oleophilic residue or food residue, to entrain the particles of residue within the air or gas bubbles prior to separating the oil or food residues from the carrier material, typically water. Instead of using the hydrocyclone as a separator, it is used as a mixer which provides surprising results and facilitates separation of the aerated components.