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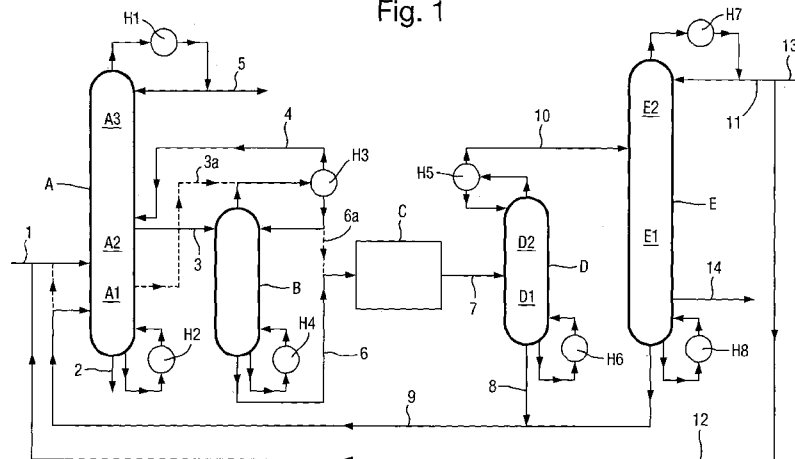
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(54) Title: PROCESS FOR PURIFYING A STREAM COMPRISING 1,4- BUTANEDIOL

Fig. 1

(57) Abstract: A process for purifying a stream comprising 1,4-butanediol comprising the steps of: (a) supplying a crude product stream comprising 1,4-butanediol and one or more of γ -butyrolactone, 2-(4-hydroxybutoxy)-tetrahydrofuran, 4-hydroxybutyl(4-hydroxybutyrate), and 3-(4-hydroxybutoxy)-tetrahydrofuran to a first distillation column; (b) removing a side-draw comprising 1,4-butanediol, and light components, said light components including at least some of those produced by reaction in the first distillation column; (c) passing the stream to a hydrogenation zone; (d) subjecting the stream from step (c) to hydrogenation in the hydrogenation zone in the presence of a hydrogenation catalyst, and recovering from the hydrogenation zone a 1,4-butanediol product stream having a reduced content of 2-(4-hydroxybutoxy)-tetrahydrofuran, and optionally additionally including (4-hydroxybutyl)-4-hydroxybutyrate formed by reaction of γ -butyrolactone; (e) passing the 1,4-butanediol product stream from step (d) to a second distillation column operated such that (4-hydroxybutyl)-4-hydroxybutyrate is removed as a bottom stream and removing a 1,4-butanediol stream as overhead; and (f) passing the overhead stream removed in (e) to a third distillation column and recovering a purified 1,4-butanediol stream.