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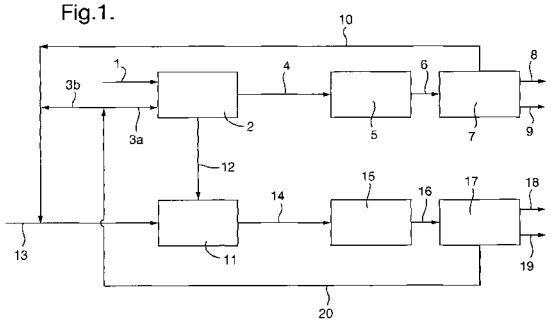
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(54) **Title**: PROCESS FOR THE CO-PRODUCTION OF A STREAM OF A FATTY ALCOHOL HAVING A FIRST CARBON CHAIN LENGTH AND A STREAM OF A FATTY ALCOHOL HAVING A SECOND CARBON LENGTH

Fig.1.



(57) **Abstract**: A process for the co-production of a stream of a fatty alcohol having first carbon chain lengths and a stream of a fatty alcohol having a second carbon chain lengths, said second carbon chain lengths being longer than said first carbon chain lengths, said process comprising the steps of: (a) supplying a stream comprising lower alkyl esters of fatty acids having chain lengths comprising the first and second chain lengths to a first vaporisation zone and contacting said stream with an amount of hydrogen recycled from step (i) which is sufficient to vaporise the lower alkyl esters of the fatty acids having the first carbon chain lengths into the hydrogen; (b) supplying the hydrogen and the vaporised lower alkyl esters of fatty acids having the first carbon chain lengths to a first reaction zone comprising catalyst and operating under reaction conditions to allow hydrogenation to the desired alcohol having first carbon chain lengths; (c) recovering from the first reaction zone an alcohol product stream having first carbon chain lengths and the hydrogen; (d) supplying the unvaporised lower alkyl esters of the fatty acids having second carbon chain lengths remaining from step (a) to a second vaporisation zone; (e) contacting the unvaporised lower alkyl esters having second carbon chain lengths in the second vaporisation zone with an amount of hydrogen sufficient to vaporise the lower alkyl esters having fatty acids of the second carbon chain lengths into the hydrogen; (f) supplying the hydrogen and the vaporised lower alkyl esters of fatty acids having second carbon chain lengths to a second reaction zone comprising catalyst and operating under reaction conditions to allow hydrogenation to the desired alcohol having second carbon chain lengths; (g) recovering from the second reaction zone an alcohol product stream having second carbon chain lengths and hydrogen; (h) separating the stream of fatty acid alcohol having the second carbon chain length from hydrogen; and (i) recycling a portion of the hydrogen recovered in step (h) to the first vaporisation zone and a portion to the second vapourisation zone.

WO 2010/116164 A1