(Examples 2 to 3)

Other than using a first gas having the mole ratio of carbon monoxide to hydrogen shown in Table 2, it was performed similarly to Example 1-1. In other words, in Examples 2 and 3, hydrogen was also supplied from the hydrogen supplying unit 5.

[0170]

[Table 2]

	H_2/CO ratio of first gas (mole ratio)	Yield of liquefied petroleum gas (%)
Example 1-1	1.0	9.2
Example 2	1.5	11.3
Example 3	2.0	16.3

[0171]

As shown in Table 2, the yield of liquefied petroleum gas could be increased by supplying hydrogen from the hydrogen supplying unit 5 and doubling the mole ratio of hydrogen relative to carbon monoxide.

[0172]

(Examples 3-1 to 3-3)

Next, in Example 3, the supplied amount of carbon dioxide from the recycling unit 4 to the dry reforming unit 2 was adjusted by operating the combusting unit at the combustion rate shown in Table 3. Then, the total hydrocarbon amount excluding the liquefied petroleum gas component in the second gas and the carbon dioxide amount in the second gas were measured, and the proportions of the total hydrocarbon excluding the liquefied petroleum gas component and carbon