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Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

[Continued on next page]

(54) **Title:** METHODS AND APPARATUS FOR MAXIMUM RATIO COMBINING FOR DUPLICATED SIGNALS IN OFDMA SYSTEMS

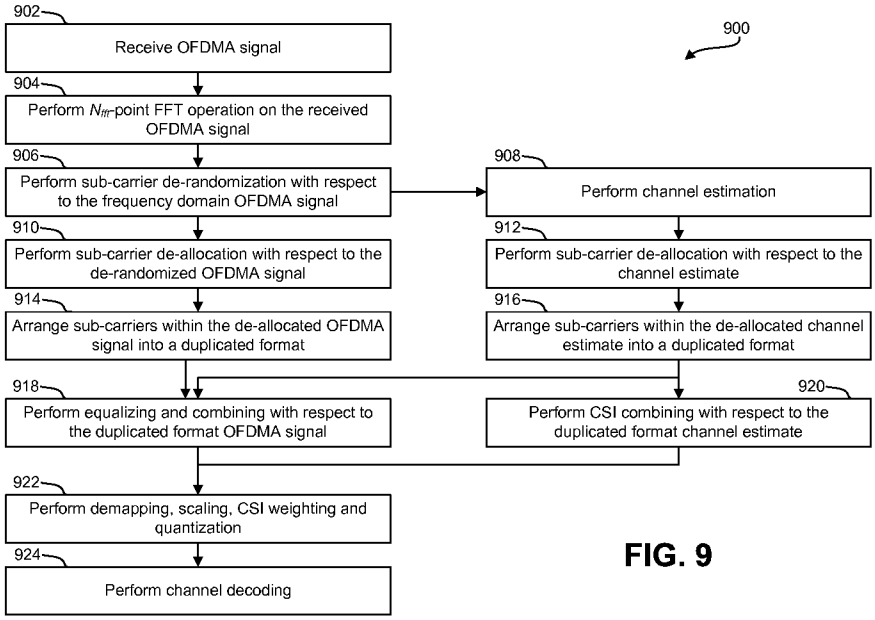


FIG. 9

(57) **Abstract:** In accordance with a method for processing a received orthogonal frequency division multiple access (OFDMA) signal that comprises a duplicated signal, sub-carriers within the OFDMA signal may be arranged into a duplicated format. The OFDMA signal may be equalized and combined after the sub-carriers have been arranged into the duplicated format. The equalizing and combining may be performed in accordance with a maximum ratio combining (MRC) scheme. The OFDMA signal may be demapped after the equalizing and combining is performed.

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