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(54) **Title:** OPTIMAL CROSSTALK CANCELLATION FILTER SETS GENERATED BY USING AN OBSTRUCTED FIELD MODEL AND METHODS OF USE

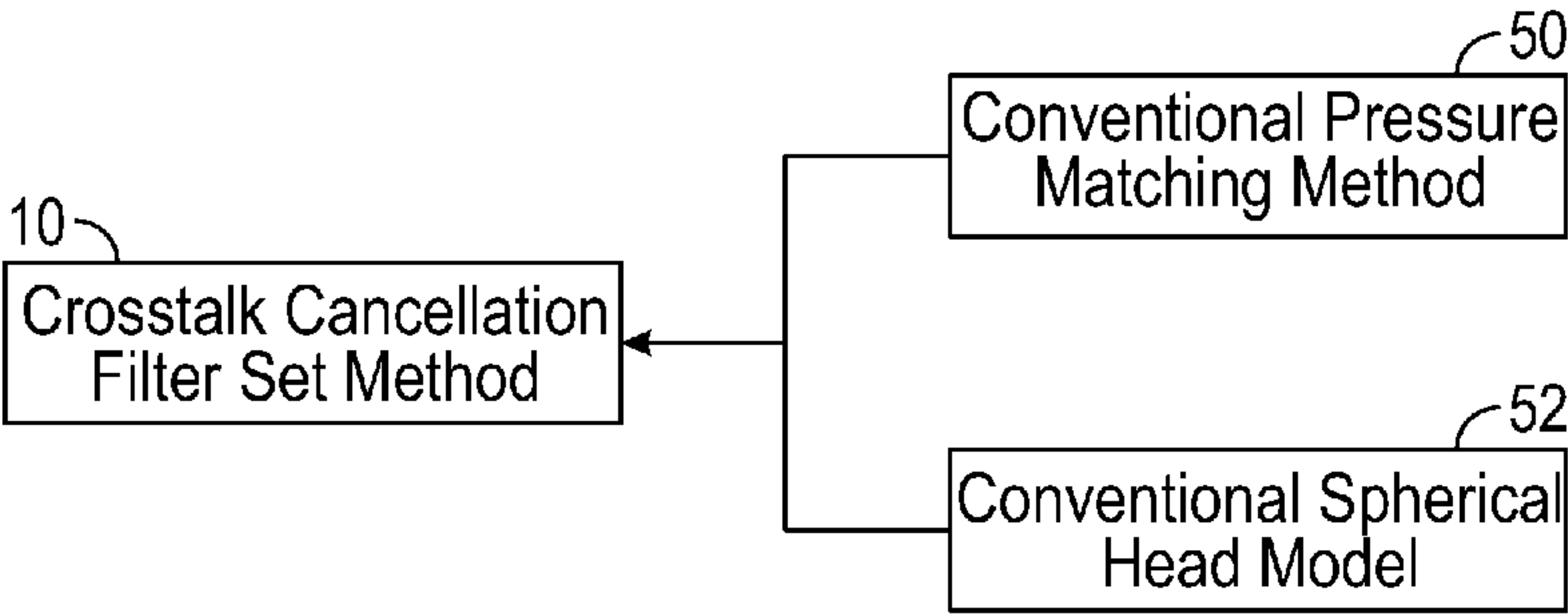


FIG. 4

(57) **Abstract:** A crosstalk cancellation filter set configured for use in delivering binaural signals to human ears is provided. The crosstalk cancellation filter set includes a pressure matching system configured to perform spatial filtering or sound field control and an obstructed field model in communication with the pressure matching system. The crosstalk cancellation filter set is configured to take acoustic advantage of scattering effects and occlusional effects caused by violations to a free-field assumption, thereby delivering improved crosstalk cancellation acoustic displays to a listener without the use of headphones.