United States Patent [19]

Lindenmeier et al.

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[54] **SIGNAL DIVERSITY ARRANGEMENT FOR MOBILE RECEPTION**

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[30]   **Foreign Application Priority Data**

   Dec. 2, 1986 [DE] Fed. Rep. of Germany 3641109

[51] **Int. Cl.⁴** H04B 11/16

[52] **U.S. Cl.** **455/133**; 455/135; 455/275; 455/278

[58] **Field of Search** 455/132–135, 455/50, 272, 275, 276, 278, 296, 303; 375/100; 370/95, 100, 110.1

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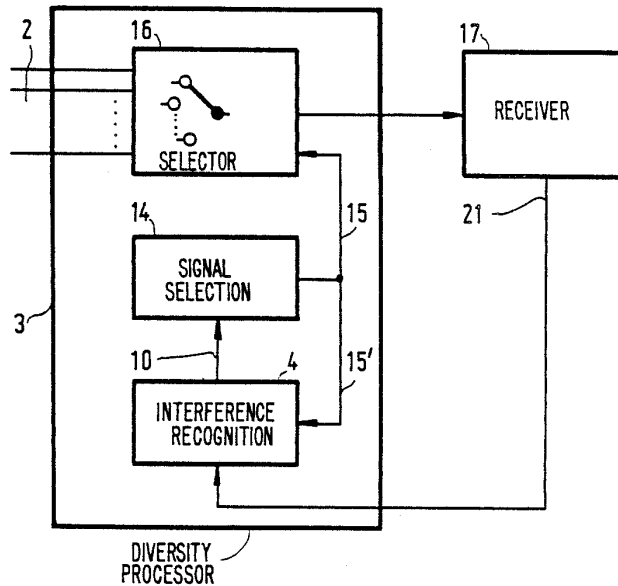"NTG Fachbrichte Band 72", p. 241, 3/80.

Primary Examiner—Robert L. Griffin
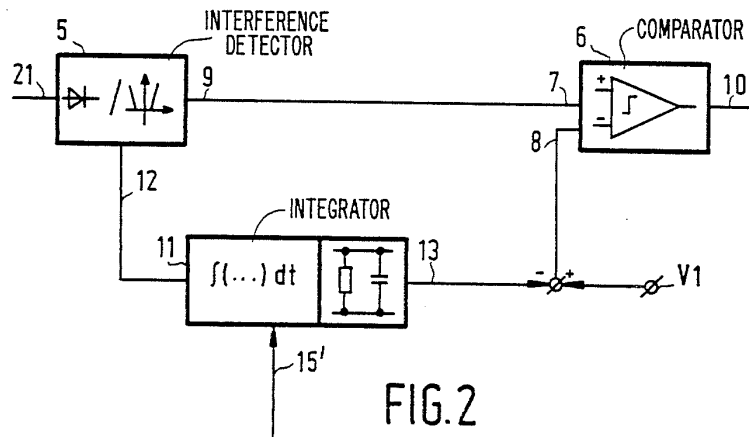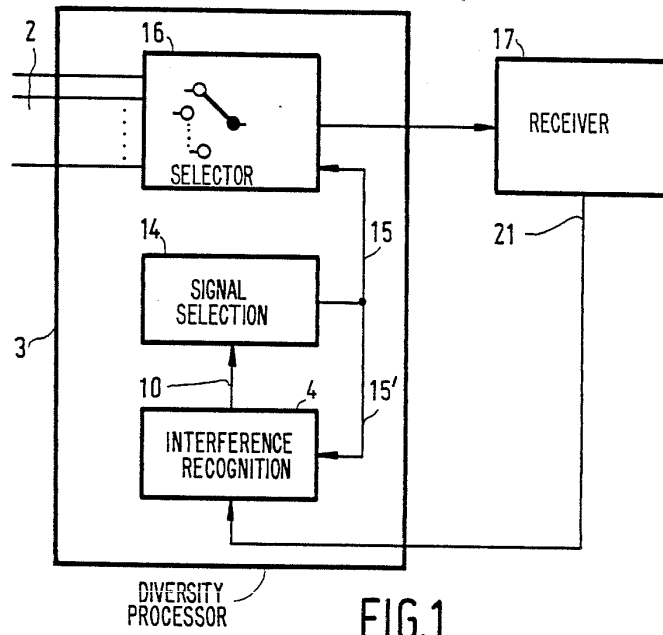*Assistant Examiner*—Curtis Kuntz

Attorney, Agent, or Firm—David R. Treacy

[57]   **ABSTRACT**

The invention relates to a signal diversity arrangement for a mobile reception, comprising a receiver and a diversity processor, which receives the input signals and applies a different input signal to the receiver when interference occurs. The diversity processor comprises an interference detector operating in the analog mode and a comparator, to whose first input is applied the output signal of the interference detector and to whose senond input is applied a suitably set voltage V1. The comparator shows on its output the occurence of interference by way of a binary signal when the threshold voltage V at the second input is exceeded. No less than one integrator is available having a discharging time constant, to whose input is applied a signal derived from the interference signal and whose time of integration is equal to the switching interval of one of the input signals and whose output signal is added to either the interference signal at the first comparator input such that when the interference is increased the total voltage at the first input of the comparator is increased also, or the output signal is applied to the second comparator input such that the threshold voltage is lowered when the interference rises. In the case of a series of integrators whose inputs each receive a signal derived from the interference signal of the associated input signal, the output signals of these integrators are each time applied to one of the comparator inputs and the threshold voltage V is changed each time in accordance with the interference signal during the switching interval.
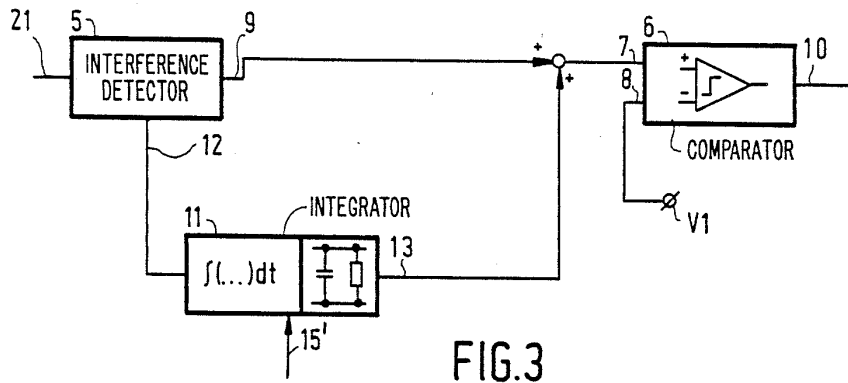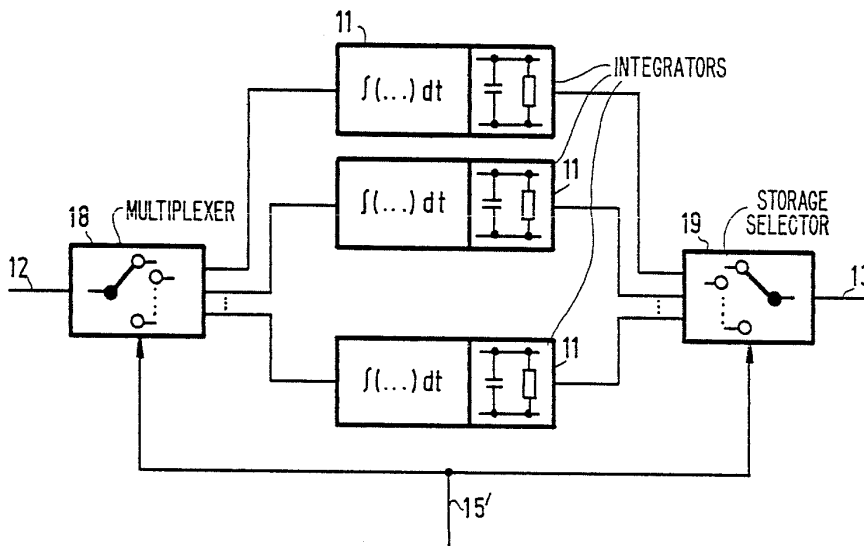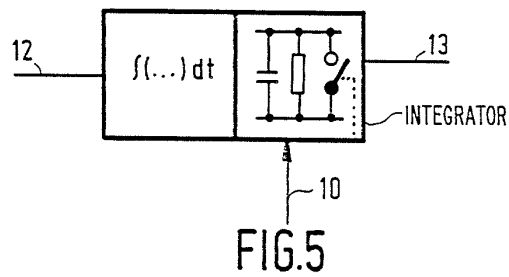
12 Claims, 4 Drawing Sheets

FIG.1

FIG.2

FIG.3
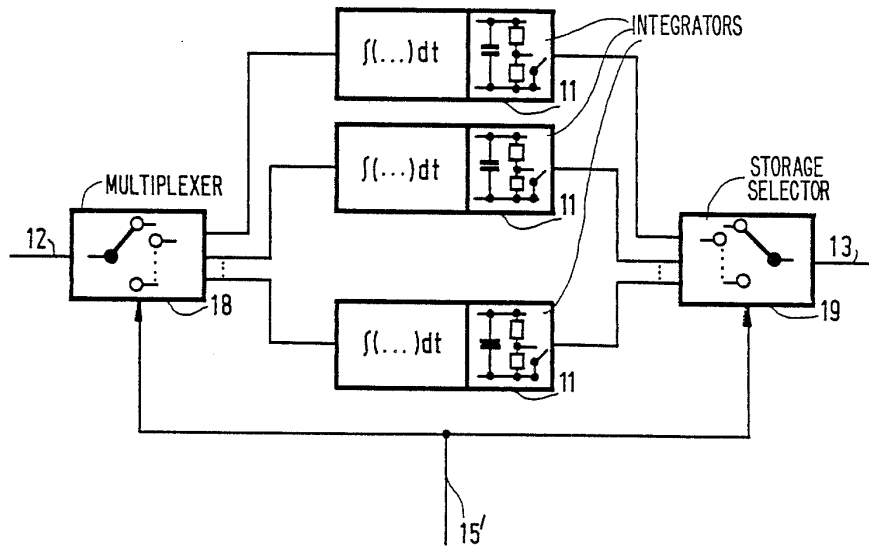

FIG.4

FIG.5

FIG.6

FIG.7

FIG.8

FIG.9

DOCKET ALARM
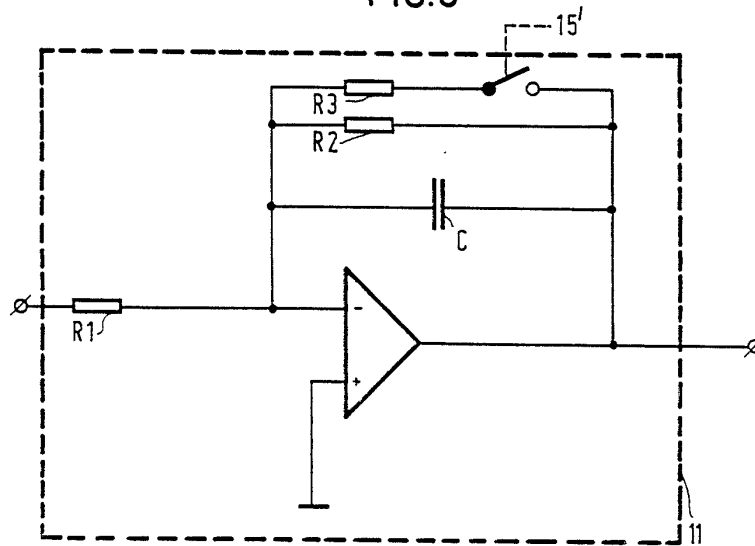
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