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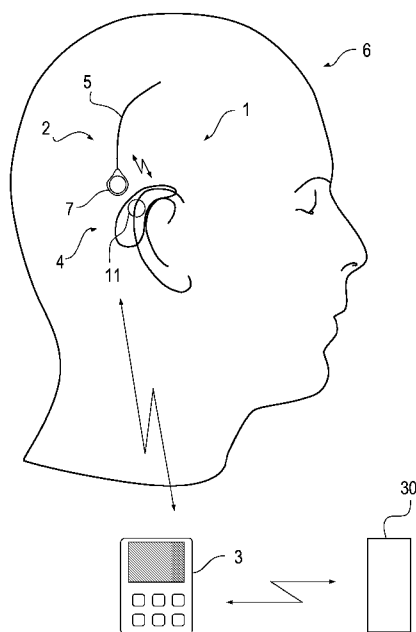


Fig. 1

(57) Abstract: A system for remote surveillance of an EEG signal of a person susceptible of having a hypoglycemic seizure, comprising an EEG sensor part (2) with electrodes (5) for measuring one or more EEG signals from the person, and comprising a processing unit (4) adapted to be removable arranged at the ear of said person, having EEG signal processing means (13) for analyzing the EEG signal, where the signal processing means are adapted for, based on the EEG signal, identifying or predicting a hypoglycemic seizure in the person. The processing part (4) comprises decision means for deciding, based on said analyzed EEG signal, when an alarm or information must be provided. The system comprise a first connection (12) between the EEG sensor part (2) and the processing unit (4), adapted for transmitting an EEG signal from the implantable EEG sensor to the processing unit. The system comprise an external part (3) adapted to receive wirelessly an alarm from the processing part, where the external part is adapted to forward an alarm to a care giver. The system comprise a second connection (20) between the processing unit and the external part, this second connection is wireless.