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(54) **Title:** IMPLANTABLE MEDICAL DEVICE WITH ELECTRODE DISLOCATION RECOGNITION

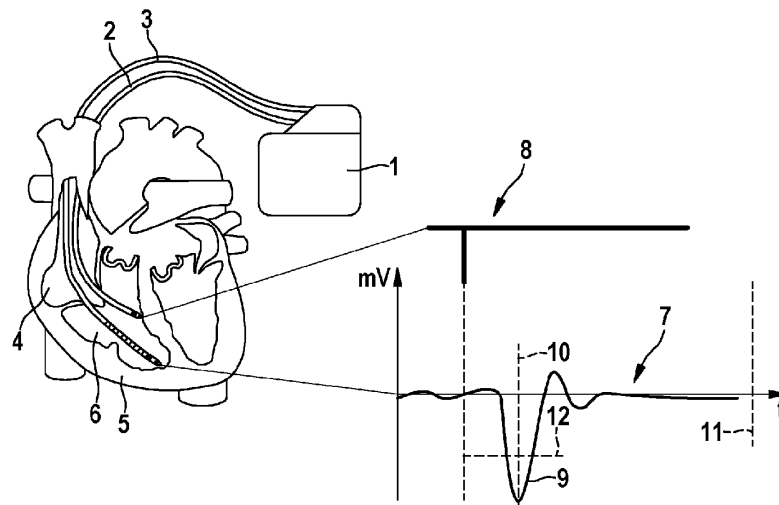


FIG. 1B

(57) **Abstract:** The invention relates to an implantable medical device (1) for stimulating a human or animal heart, comprising a processor, a memory unit, a stimulation unit comprising a stimulation electrode (2) configured to stimulate a first cardiac region (4) of a human or animal heart (5), and a detection unit (3) configured to detect an intracardiac electrogram (7) at a second cardiac region (6) of the same heart (5), the second cardiac region (6) being a ventricle. In operation, the device performs the following steps: delivering a stimulation pulse (8) to a human or animal heart (5) by the stimulation unit; evaluating a time and at least one morphologic parameter of a signal (9) of an intracardiac electrogram (7) detected by the detection unit, the signal having been caused in response to the stimulation pulse (8), wherein the at least one morphologic parameter is chosen from the group comprising of an absolute value of an amplitude of the signal (9), a width of the signal (9), a positive and/or a negative and/or a total area under at least a part of the signal (9), a number of occurrences and/or a time of occurrence of zero crossings of the signal (9); and identifying a dislocation of the stimulation electrode (2) if a) the time of the signal (9) is below a first threshold value (11) and b) the morphologic parameter exceeds at least one further

WO 2021/259600 A1

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