A cardiac pacemaker including means for variably controlling the stimulation rate of the heart according to the level of muscular exertion in the body, comprising:

- a sensor means for sensing a body temperature;
- a stimulus means for applying an electrical stimulus to a heart;
- a control circuit means for calculating dT/dt of said sensed body temperature, said control circuit means including means for generating a rate control signal
according to a predetermined algorithm relating heart rate to dT/dt; and

a cardiac pacemaker connected to said control circuit means and said stimulus means and responsive to said rate control signal to variably control the stimulation rate of the heart.

A. The cardiac pacemaker of claim 1 wherein said rate control signal generating means is operative to generate a rate control signal according to a predetermined algorithm relating heart rate to dT/dt and a previous heart rate.

B. The cardiac pacemaker of claim 2 wherein said control circuit means is operative to calculate dT/dt on the basis of first and second average temperature values associated respectively with first and second consecutive time periods of approximately one-minute duration.

C. The cardiac pacemaker of claim 2 wherein said control circuit means further includes means for sampling the output of said sensor means periodically at a rate of approximately one sample every two seconds, and means for averaging temperature samples from said sensor means over a period of approximately one minute.

REMARKS

Claims 1 through 9 have been rejected by the Examiner under 35 U.S.C. §101 on the basis of double patenting with respect to applicants' U.S. Patent No. 4,436,092. Claims