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(54) **ACQUISITION OF HIGH-TEMPORAL FREE-BREATHING MR IMAGES**

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(58) **Field of Classification Search** None
See application file for complete search history.

(56) **References Cited**
PUBLICATIONS

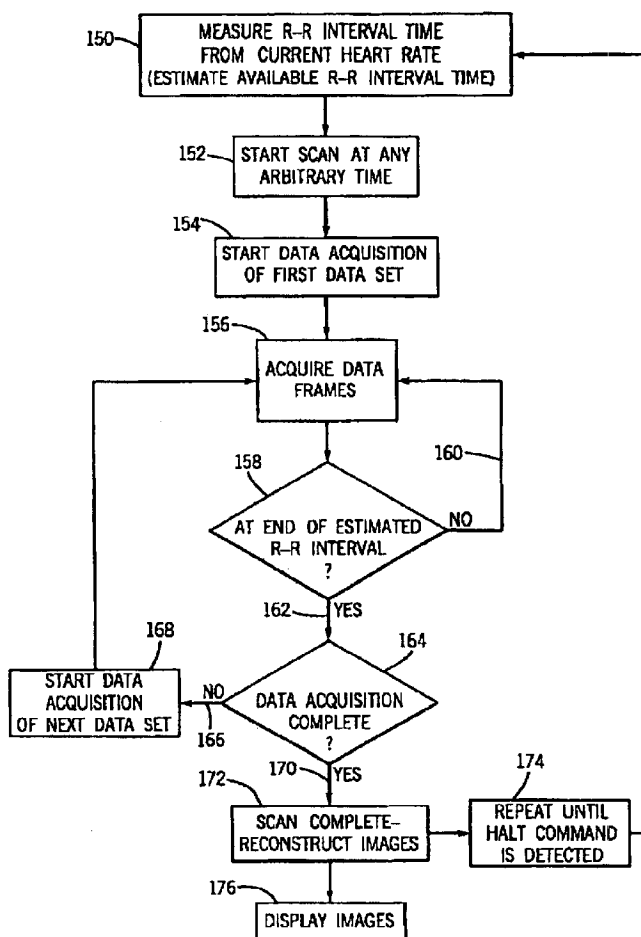
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Primary Examiner—Beverly M. Flanagan

(57) **ABSTRACT**

A system and method are disclosed to acquire high temporal resolution free-breathing cardiac MR images. The technique includes monitoring heart rate of a patient just prior to image acquisition to acquire a time period of an R—R interval, and using this time period from the heart rate monitoring to prospectively estimate future R—R intervals. The acquisition of MR data can then commence at any point in an R—R interval and extend for the time period recorded. The data acquisition can be segmented and acquired in successive R—R intervals, then combined to create high temporal resolution images.



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**EX PARTE
REEXAMINATION CERTIFICATE
ISSUED UNDER 35 U.S.C. 307**

NO AMENDMENTS HAVE BEEN MADE TO
THE PATENT

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AS A RESULT OF REEXAMINATION, IT HAS BEEN
DETERMINED THAT:

5 The patentability of claims 1-32 is confirmed.

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