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54 **Apparatus for direct conversion of radioactive decay energy to electrical energy.**

57 A nuclear battery in which the energy imparted to radioactive decay products during the spontaneous disintegrations of radioactive material is utilized to sustain and amplify the oscillations in a high-Q LC tank circuit is provided. The circuit inductance comprises a coil wound on a core composed of radioactive nuclides connected in series with the primary winding of a power transformer. The core is fabricated from a mixture of three radioactive materials which decay primarily by alpha emission and provides a greater flux of radioactive decay products than the equivalent amount of a single radioactive nuclide.

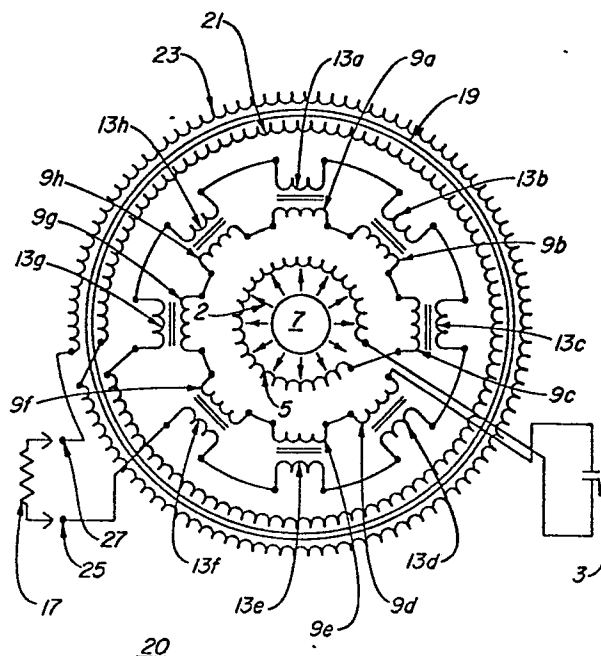


Fig. 2



DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. 4)
A	US-A-2 748 339 (R. RÜDENBERG) * Column 2, lines 26-47; column 5, line 56 - column 6, line 62; figures 1,2 * ---	1,4	G 21 H 1/00 G 21 H 1/04
A	US-A-4 489 269 (EDLING et al.) * Column 3, line 55 - column 5, line 5; figure 1 * ---	1,4	
A	ATOMPRAXIS, vol. 11, no. 9/10, 1965, pages 512-514; "Selection and production of suitable isotopes" * Page 514, left-hand column, paragraph 6 - right-hand column, paragraph 2 * ---	1,2,5,6	
A,D	US-A-3 409 820 (J.O. BURKE) * Column 2, lines 40-59; figure 2 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl. 4)
			G 21 H 1/00 G 21 D 7/00 H 03 F 21/00
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 12-07-1988	Examiner JANDL F.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			