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Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

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A handwritten signature in black ink that reads 'Jon W. I. Dudas'. The signature is written in a cursive style with a large, looping initial 'J'.

Director of the United States Patent and Trademark Office



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(12) **United States Patent**
Deguchi

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(54) **RADIATING METHOD AND RADIATING APPARATUS OF WAVE MOTION FOR GIVING REDUCING PROPERTIES**

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* cited by examiner

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(*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(57) **ABSTRACT**

A conventional method for giving reducing properties uses medication or medium and thus, a range in which the method can be utilized is limited, and there is apprehension that the method adversely affects the environment of ecological system. Further, an apparatus for giving reducing properties is large in scale, and there is an adverse possibility that the apparatus adversely affects other electronic equipment. It is an object of the present invention to solve these problems. A plurality of coaxial cables are arranged as radiators **3** in a form of comb teeth-like shape. Each of the coaxial cable has a predetermined length and a dielectric **3c** between an internal conductor **3a** and an external conductor **3b**. The coaxial cables are connected to an oscillator in series for supplying high frequency alternating current. A capacitor **5** is interposed between the internal and external conductors **3a** and **3b** of each the radiator **3**, currents are allowed to flow through the internal conductor **3a** and the external conductor **3b** in the opposite directions, thereby radiating a subject with wave motion which generates reducing properties by an electron giving effect.

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(51) **Int. Cl.**⁷ **H01Q 9/04**; H01B 17/58

(52) **U.S. Cl.** **343/791**; 174/34

(58) **Field of Search** 343/790, 791, 343/792; 174/33, 34, 35 C

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17 Claims, 5 Drawing Sheets

