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**United States Patent**

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(12) **United States Patent**  
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(54) **METHOD OF SMOKING/BURNING TYPE VOLUME REDUCTION TREATMENT AND APPARATUS THEREFOR**

(75) **Inventor:** **Kuniomi Araki**, Inaba Bldg. 202, 13-19, Minamidai 4-chome, Sagamiharashi, Kanagawa, 2280814 (JP)

(73) **Assignees:** **Kazuhiko Takada**, Yokohama-shi (JP); **Mamoru Ozawa**, Tokyo (JP); **Koichiro Yanagisawa**, Ueda-shi (JP); **Kuniomi Araki**, Sagamihara-shi (JP)

(\*) **Notice:** Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 393 days.

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See application file for complete search history.

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*Primary Examiner*—N. Bhat

(74) *Attorney, Agent, or Firm*—Kratz, Quintos & Hanson, LLP

(57) **ABSTRACT**

In the operation of smoking/burning type volume reduction treatment apparatus (1), referring to view (A), charcoal carbonized layer (T<sub>2</sub>) is spread over powdery ceramic layer (T<sub>1</sub>) in the state of having negative ion air fed through air supply inlet (H). Further, sawdust layer (T<sub>3</sub>) is spread thereover, and thereafter treatment subject layer (V) is piled thereon. In a temporary burning region of the carbonized layer (T<sub>2</sub>), the powdery ceramic layer (T<sub>1</sub>) exerts not only heat storing action but also heat radiation action. Referring to view (B), the interior of the sawdust layer (T<sub>3</sub>) is altered into temporary carbonized layer (T<sub>3 1</sub>) and temporary dried layer (T<sub>3 2</sub>). As the temporary burning region slowly moves upward, an under side of the treatment subject layer (V) is altered into dried layer (V<sub>1</sub>) and further, carbonized layer (V<sub>2</sub>) shown in view (C) is formed. Thereafter, this carbonized layer (V<sub>2</sub>) catches fire, so that burning region (V<sub>3</sub>) is formed in layered form in the treatment subject layer (V). Thus, smoking/burning starts. Accordingly, there can be provided a method wherein a burning region is securely formed in the treatment subject within the apparatus (1).

**30 Claims, 11 Drawing Sheets**

