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Lomicka

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(54) **POROUS IMPLANT DEVICE WITH IMPROVED CORE**

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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 95 days.

3,797,113 A	3/1974	Brainin
3,849,887 A	11/1974	Brainin
3,896,547 A	7/1975	Kulwiec
3,905,109 A	9/1975	Cohen et al.
3,906,550 A	9/1975	Rostoker et al.
3,919,773 A	11/1975	Freeman
3,934,347 A	1/1976	Lash et al.
3,992,725 A	11/1976	Homsy
4,011,602 A	3/1977	Rybicki et al.
4,016,651 A	4/1977	Kawahara et al.
4,086,701 A	5/1978	Kawahara et al.
4,097,935 A	7/1978	Jarcho
4,122,605 A	10/1978	Hirabayashi et al.
4,131,597 A	12/1978	Bluethgen

(Continued)

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(52) **U.S. Cl.**
USPC **433/174**

(58) **Field of Classification Search**
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See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

2,721,387 A	10/1955	Ashuckian
3,314,420 A	4/1967	Smith et al.
3,423,830 A	1/1969	Halpern et al.
3,423,831 A	1/1969	Semmelman
3,435,526 A	4/1969	Brancato
3,497,953 A	3/1970	Weissman
3,685,115 A	8/1972	Scott
3,713,860 A	1/1973	Auskern
3,740,851 A	6/1973	Weissman

FOREIGN PATENT DOCUMENTS

CA	2506845	7/2001
CN	102596095 A	7/2012

(Continued)

OTHER PUBLICATIONS

An Introduction to Silanes and Their Clinical Applications in Dentistry, Jukka P.I. Matinlinna et al., vol. 17, No. 2, pp. 155-164 the International Journal of Prosthodontics, 2004.

(Continued)

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(57) **ABSTRACT**

An implant device has an exterior portion forming an exterior surface of the implant. The exterior portion is made of a porous material defining passages through the exterior portion. An inner portion has an outer surface with a treated area that is accessible from the exterior surface through the passages. The treated area has a treatment for direct attachment to bone or soft tissue.

19 Claims, 4 Drawing Sheets

