



(12) **United States Patent**
Donoho

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- (54) **ELECTRIC DETERRENT DEVICE**
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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.
This patent is subject to a terminal disclaimer.

- (52) **U.S. Cl.**
CPC *A01M 29/24* (2013.01); *A01M 29/26* (2013.01); *A01M 29/28* (2013.01)
- (58) **Field of Classification Search**
USPC 43/98, 112; 340/573.2; 119/713, 712; 256/10; 361/232
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 2,989,789 A 6/1961 Cohn
 - 3,366,854 A 1/1968 Robinson
 - 4,015,176 A 3/1977 Shanahan et al.
- (Continued)

FOREIGN PATENT DOCUMENTS

- DE 3930012 A1 3/1991
 - EP 1205589 A1 5/2000
- (Continued)

OTHER PUBLICATIONS

Patent Cooperation Treaty, "Notification of Transmittal of the International Search Report and the Written Opinion of the International Search Authority, or the Declaration", PCT/US2010/021395, issued Mar. 30, 2010.

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(57) **ABSTRACT**

Electric pest deterrents device having knitted conductors are presented. An elongated conductor comprising at least a single conducting strand knitted with itself or with other conducting strands can be attached to a base of the device. The conducting strands can be knitted according to one or more patterns to form textured surfaces having raised protrusions.

22 Claims, 4 Drawing Sheets

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- (22) Filed: **Aug. 11, 2015**
- (65) **Prior Publication Data**
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Related U.S. Application Data

- (60) Continuation of application No. 14/104,456, filed on Dec. 12, 2013, now Pat. No. 9,101,127, which is a division of application No. 13/867,781, filed on Apr. 22, 2013, now Pat. No. 8,733,014, which is a division of application No. 13/492,483, filed on Jun. 8, 2012, now Pat. No. 8,424,238, which is a continuation of application No. 12/689,406, filed on Jan. 19, 2010, now Pat. No. 8,196,340.
- (60) Provisional application No. 61/145,715, filed on Jan. 19, 2009.
- (51) **Int. Cl.**
A01M 19/00 (2006.01)
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