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WO 2015/030822 A1 US 7023218 B1  
US 6349161 B1 US 5042903 A  
US 20150206403 A1

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(71) Applicant(s):  
Halliburton Energy Services, Inc.  
(Incorporated in USA - Texas)  
3000 North Sam Houston Parkway East, Houston,  
Texas 77032, United States of America

(72) Inventor(s):  
Wolfgang Hartmut Nitsche  
John L Maida

(74) Agent and/or Address for Service:  
Hoffmann Eitle  
Harmsworth House, 13-15 Bouverie Street, London,  
EC4Y 8DP, United Kingdom

(54) Title of the Invention: **Optical fiber cable protected from animal bite**  
Abstract Title: **Optical fiber cable protected from animal bite**

(57) Apparatuses and methods for providing voltage to a metal layer of an optical cable are provided. The metal layer may be configured to provide an electric shock to an animal upon contact.

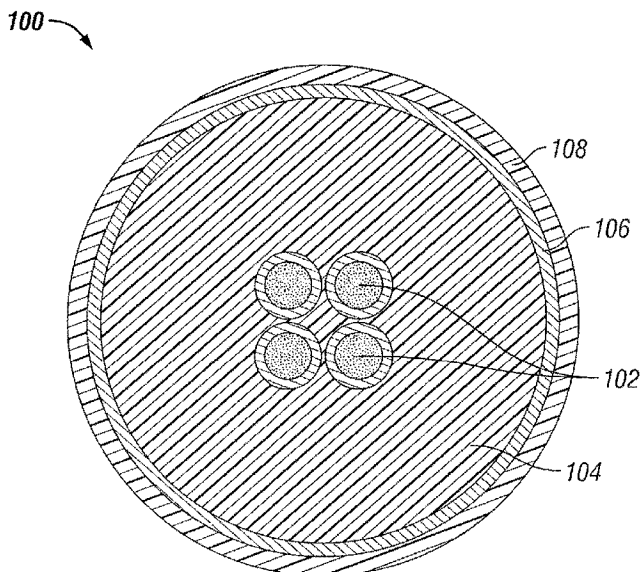


FIG. 1

The international application has entered the national phase early.

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

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