

United States Patent

McKean

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[54] **CORONA-RESISTANT SOLID DIELECTRIC CABLE**

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[58] Field of Search174/102, 102.2, 105, 105.1, 174/108, 127, 106, 106.2, 36, 110.44, 110.42

[56] **References Cited**

UNITED STATES PATENTS

2,142,625 1/1939 Zoethout174/102 X

2,453,313	11/1948	Gordon.....	174/102.2 UX
3,259,688	7/1966	Towne et al.	174/127 X
3,396,231	8/1968	Anderson.....	174/127 X
3,433,891	3/1969	Zysk et al.....	174/102 X
3,441,660	4/1969	Garner.....	174/102

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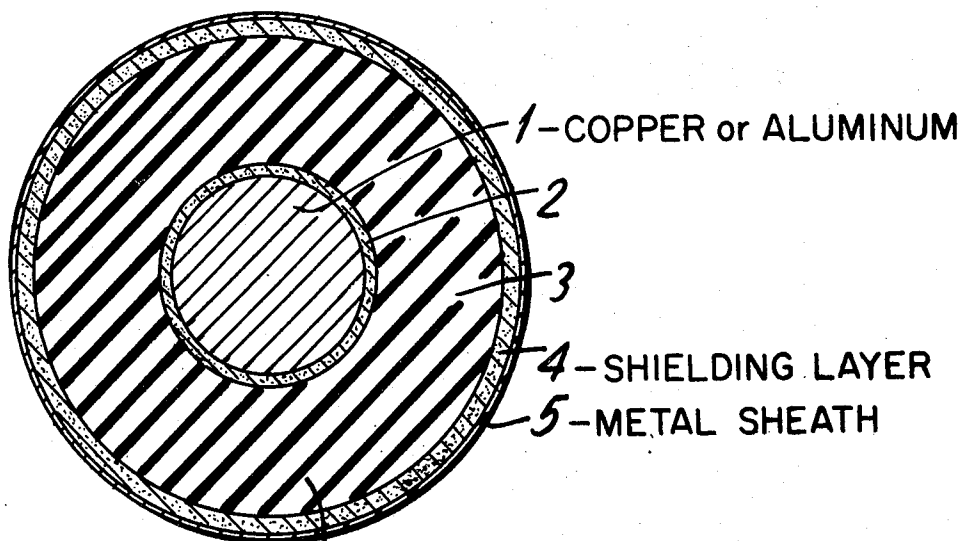
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[57]

ABSTRACT

A conductor is surrounded by an inner shielding layer, an insulating layer of solid dielectric material such as polyethylene, and an outer shielding layer of polymeric material which adheres but is unbonded to the insulating layer and which has a resistivity of at least 1.0 million ohms-cm., whereby the outer shielding layer substantially suppresses the effects of corona discharge and can be readily stripped from the insulating layer for splicing or terminating the cable.

8 Claims, 1 Drawing Figure



ETHYLENE PROPYLENE
ISOBULYLENE ISOPRENE
CROSS LINKED POLYETHYLENE