Julius Nieuwland Biography

Julius Nieuwland

The following sections of this BookRags Literature Study Guide is offprint from Gale's For Students Series: Presenting Analysis, Context, and Criticism on Commonly Studied Works: Introduction, Author Biography, Plot Summary, Characters, Themes, Style, Historical Context, Critical Overview, Criticism and Critical Essays, Media Adaptations, Topics for Further Study, Compare & Contrast, What Do I Read Next?, For Further Study, and Sources.

(c)1998-2002; (c)2002 by Gale. Gale is an imprint of The Gale Group, Inc., a division of Thomson Learning, Inc. Gale and Design and Thomson Learning are trademarks used herein under license.

The following sections, if they exist, are offprint from Beacham's Encyclopedia of Popular Fiction: "Social Concerns", "Thematic Overview", "Techniques", "Literary Precedents", "Key Questions", "Related Titles", "Adaptations", "Related Web Sites". (c)1994-2005, by Walton Beacham.

The following sections, if they exist, are offprint from Beacham's Guide to Literature for Young Adults: "About the Author", "Overview", "Setting", "Literary Qualities", "Social Sensitivity", "Topics for Discussion", "Ideas for Reports and Papers". (c)1994-2005, by Walton Beacham.

All other sections in this Literature Study Guide are owned and copyrighted by BookRags, Inc.

Contents

Julius Nieuwland Biography.....1

Contents.....2

Biography.....3

Biography

Rev. Julius Nieuwland, C.S.C., was the inventor of the first synthetic rubber, neoprene, manufactured by Du Pont. At the time of his invention, Nieuwland was a professor at the University of Notre Dame and a priest of the Congregation of the Holy Cross.

Nieuwland was born of Flemish parents in Hansbeke, Belgium and immigrated as a youngster with his family to South Bend, Indiana. He graduated from Notre Dame in 1899, studied for the priesthood and was ordained in 1903, and received his Ph.D. from Catholic University in 1904. He taught botany for a number of years at Notre Dame, and in 1918 became a professor of organic chemistry. At that time, he was working with acetylene. In the course of this work, he discovered a reaction between acetylene and arsenic trichloride that eventually led to the development of the poison gas lewisite.

Nieuwland's work with acetylene also led him into a collaboration with scientists at Du Pont. Together, they found that upon treating monovinylacetylene with hydrogen chloride to produce chloroprene and polymerizing the result, a very durable synthetic rubber, neoprene, was produced. Du Pont placed this rubber on the market in 1932 under the brand name Duprene.

Neoprene has been considered superior to rubber in terms of its resistance to sunlight, abrasion, and temperature extremes. These properties gained it popularity in many industries. Neoprene is favored for electrical cable insulation; telephone house-to-house wiring; many moulded, extruded, and sheet products; rug backings; and roofing.