Diving Bell Encyclopedia Article

Diving Bell

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

Diving Bell Encyclopedia Article.....1

Contents.....2

Diving Bell.....3

Diving Bell

The first device that allowed man to descend underwater and observe the marine environment for an extended period was the diving bell. Named for their shape, these chambers began as open-ended metal-rimmed wooden barrels and have existed since antiquity. Legend claims that Alexander the Great (356-323 B.C.) used a diving bell in 332 B.C. to take a trip beneath the Bosporus. Whether this tale is true or not, Aristotle, a contemporary, told of a simple but functional diving bell. By 1620 Sir Francis Bacon (1561-1626) knew of a "sort of metal barrel" that could take men underwater. And in 1665, a diving bell was used to salvage guns from a shipwrecked Armada vessel. Although many eighteenth-century inventors worked on diving bells, the noted English astronomer Edmund Halley (1656-1743) is credited with the first modern version. Although still open at the bottom, his wooden bell had a capacity of 60 cubic feet and contained a bench and platform for its occupants. In 1716, he demonstrated a way to replenish the air inside so it could remain submerged for even more extended periods of time. While divers remained underwater inside the bell, lead containers filled with fresh air were lowered from the surface. The containers were encased in wooden barrels to which hoses were attached. When the barrel reached the bell, it was tipped in such a way that the air was forced upward and entered the bell. As the new air entered, the occupants released the spent air through a tap at the top of the chamber. Halley later developed a device he called the "cap of Maintenance," a kind of headgear that allowed divers to leave the bell yet remain attached to its air-supply system. By the 1720's developers added an air pump to the diving bell, ensuring a constant supply of fresh air. In 1788, British engineer John Smeaton built the first truly modern diving bell, which was both safe and well designed. Modern bells can hold up to four passengers and travel to depths of about 1,500 feet (460 m). These are primarily used for construction, maintenance, and repair of offshore oil platforms and for naval operations.