DRILLED

Every Primary Source Is a Dozen Stories

Primary sources:

- Internal company documents
- Whistleblowers
- Patent applications

They’re tough:

- Requires time to build relationships
- Legal implications
- Vetting documents & first-person accounts

But so worth it!

- Unparalleled credibility
- Tons of stories for every one primary source
- Maximum impact - can feed into policymaking, litigation, and research

Case study: The Climate-Denying Crabbers

- Saw original patent applications from the 1980s
- Became part of climate case
- Compelling story that’s not preaching to the choir

United States Patent [19]

Bhula

[11] **4,427,320**

[45] **Jan. 24, 1984**

[54] ARCTIC OFFSHORE PLATFORM

[75] Inventor: **Dilipkumar N. Bhula,** Houston, Tex.

[73] Assignee: **Shell Oil Company,** Houston, Tex.

[21] Appl. No.: **350,458**

[22] Filed: **Feb. 19, 1982**

[51] **Int. Cl.**[3] **E02B 17/00**

[52] **U.S. Cl.** **405/211;** 405/217

[58] **Field of Search** 405/61, 195, 211, 217

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,215,952	8/1980	Baardsen	405/211
4,252,471	2/1981	Straub	405/211
4,335,980	6/1982	DePriester	405/217

FOREIGN PATENT DOCUMENTS

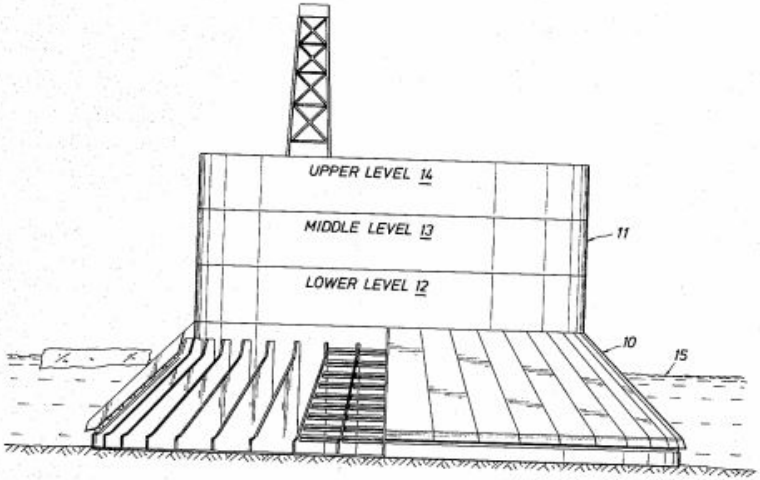
1081483	7/1980	Canada	405/211

Primary Examiner—David H. Corbin

[57] **ABSTRACT**

An offshore structure for use in drilling and producing wells in arctic regions having a conical shaped lower portion that extends above the surface of the water and a cylindrical upper section. The conical portion is provided with a controlled stiffness outer surface for withstanding the loads produced by ice striking the structure. The stiffness properties of the outer shell and flexible members are designed to distribute the load and avoid high local loads on the inner parts of the structure.

6 Claims, 6 Drawing Figures



United States Patent [19]

Devine

[11] **3,727,571**

[45] **Apr. 17, 1973**

[54] ICEBREAKING CARGO VESSEL

[75] Inventor: **Walter B. Devine,** Houston, Tex.

[73] Assignee: **Esso Research and Engineering Company,** Linden, N.J.

[22] Filed: **July 7, 1971**

[21] Appl. No.: **160,385**

[52] **U.S. Cl.** **114/41**

[51] **Int. Cl.** **B63b 35/08**

[58] **Field of Search** 114/40–42

[56] **References Cited**

UNITED STATES PATENTS

499,296	6/1893	Kruisbrink	114/42

FOREIGN PATENTS OR APPLICATIONS

54,173	6/1935	Norway	114/40

Primary Examiner—Trygve M. Blix

Attorney—Thomas B. McCulloch et al.

[57] **ABSTRACT**

A hull shape for an icebreaking cargo vessel, such as a tank ship, is provided which provides for lower ice breaking resistance, greater displacement in ice, and greater rudder and screw protection against ice when proceeding astern in ice laden or ice covered waters than conventional icebreaking vessels. The hull shape is such that a down breaking bow and a maximum ice-water line beam is provided forward of the midpoint of the hull while aft of the midpoint the ice-water line beam is smaller than that forward, the hull beam below the maximum ice-water line beam being greater than the ice-water line beam in the aft part of the hull. Vertical sections through the hull forward of the mid point slope downwardly and inwardly while aft the vertical sections slope downwardly and outwardly.

7 Claims, 1 Drawing Figure