must differ essentially from any other previously known vessel. . . .

"In the construction of the ship two points must be especially studied: (1) that the shape of the hull be such as to offer as small a vulnerable target as possible to the attacks of the ice; and (2) that it be built so solidly as to be able to withstand the greatest possible pressure from without in any direction whatsoever."

And thus she was built, more attention being paid to making her a safe and warm stronghold while drifting in the ice than to endowing her with speed or good sailing qualities.

As above stated, our aim was to make the ship as small as possible. The reason of this was that a small ship is, of course, lighter than a large one, and can be made stronger in proportion to her weight. A small ship, too, is better adapted for navigation among the ice; it is easier to handle her in critical moments, and to find a safe berth for her between the packing ice-floes. I was of opinion that a vessel of 170 tons register would suffice, but the *Fram* is considerably larger, 402 tons gross and 307 tons net. It was also our aim to build a short vessel, which could thread her way easily among the floes, especially as great length would have been a source of weakness when ice-pressure set in. But in order that such a ship, which has, moreover, very sloping sides, shall possess the necessary carrying capacity, she must be broad; and her breadth is, in fact, about a third of her