tion with the depôt vessel), from which point sledge parties would start in the early spring, and explore the unknown region in various directions.

10. The advanced parties would be in such a position as to be able to fall back upon the consort at her station near the entrance of Smith Sound. Thence, in the event of accidents, the whole expedition could retreat to the Danish settlements in Greenland, as has before been done. Thus two advantages—namely, the discovery of a wide extent of coast-line, and the certainty of a safe return—are ensured by adopting this course. They could not be secured by adopting any other course.

11. The discovery of the northern side of Greenland also offers the third advantage—the prospect of securing the most valuable results in the various branches of scientific research.

I. *Geography.*—A geographical problem of great importance and interest will be solved by completing the circuit of Greenland, ascertaining the extent and nature of its northern point, and discovering the conditions of land and sea in that portion of the unknown area.

II. *Hydrography.*—An Arctic expedition, as a supplement to the expedition now preparing to investigate the ocean-bottom in the middle and southern latitudes of the globe, is, in the opinions of Dr. Carpenter and Dr. Hooker, a scientific necessity; and Dr. Hooker considers that there is no better sphere for its labours than the northern Greenland seas.

III. *Botany.*—Recent botanical investigations, on both coasts of Greenland have tended to complicate, rather than to unravel, the problem involved in the remarkable differences between the existing floras on the two coasts. Its solution probably depends on the physical and biological conditions of much higher latitudes than have hitherto been explored. Other questions of surpassing interest have suggested themselves; foremost amongst which are the results of the investigations made within the last few years into the fossil flora of Greenland. These have indisputably proved that a vigorous forest-vegetation of many kinds of trees once flourished on what is now the Greenland coast, and extended far beyond the Arctic circle. There is a probability of this forest-vegetation having extended over the Pole itself; thus confounding all previous geological reasoning as to the climate and conditions of the globe during the Tertiary period. Recent expeditions have traced these fossiliferous beds to a much higher latitude than that of Disco, where they were first detected. To determine their extension to a point which would leave no doubt of this forest having clothed the Northern Pole would be a most important contribution to the history of palæontology, botany, and terrestrial physics.

IV. *Zoology.*—The Arctic Ocean teems with life, and the multitude of kinds of minute organised beings is prodigious. These play a most important part in the formation of sedimentary deposits, which, in future geological periods, will become incorporated with those rock-formations whose structure has only lately been explained. The kinds of these animals, the relation they bear to one another and to larger animals, the conditions under which they live, their distribution according to warm and cold currents and geographical areas, are all subjects on which very little is known. As regards larger organisms, the conditions of life in the unknown area may be such as to sustain rare and solitary species, such as the *Rhytina Stelleri*, and other animals unknown elsewhere. A more complete knowledge of the habits and habitats of the larger animals, fish, shells, corals, and sponges of the Arctic zone is much needed, as well as good specimens for museums; and more valuable still would be anatomical and physiological experiments and observations on these animals, under their natural conditions.