

Enclosure No. 2.

The importance of exploring the unknown area round the North Pole is now well understood, and the scientific results of such an examination, which have already been enumerated in the Memorandum of the Arctic Committee, can easily be set forth in complete detail. The point, therefore, which requires more immediate consideration is the best way of securing these results, without exposing the explorers to undue risk.

As the full scientific results of Arctic exploration can only be attained on and near the land, the route by Smith Sound is undoubtedly the one that should be adopted. There alone the land is known to extend, in a northerly direction, far into the unknown area; so that the geography, geology, meteorology, botany, zoology, and ethnology of an extensive new tract can be investigated; while the currents, deep-sea temperatures, and character of the fauna of the adjacent seas can also be ascertained.

Our knowledge respecting the navigability of the long strait leading north from Smith Sound has hitherto been very defective, as Captain Inglefield did not pass the entrance, and Drs. Kane and Hayes wintered only a few miles within it. But the report received from the boat's crew of the *Polaris* furnishes additional information of great importance. We now know that the American vessel commanded by Captain Hall passed up the strait in one working season, for a direct distance of 250 miles, without a check of any kind, reaching latitude $82^{\circ} 16' N.$; and that at her furthest point the sea was still navigable, with a water sky to the northwards. The *Polaris* was a mere river steamer of small power, and ill adapted for ice navigation, with a crew, all told, of only about 25 men. If she could make such a voyage without difficulty, it may fairly be anticipated that a properly equipped English expedition, under equally favourable circumstances, would do more. Such an expedition would consist of two strongly fortified steamers of 70-horse power, adapted for charging the ice and forcing their way through it, with a crew of 60 officers and men each.

Another very important feature in the voyage of the *Polaris* is the fact that she was safely drifted out into Baffin's Bay from a high northern position in the strait. This proves that the ascertained current keeps the ice in motion, and carries it south, thus preventing any long interruption of the navigation. The safety of a Government expedition is thus assured. For it is quite clear that the dangers of the Arctic regions are, in most instances, the direct consequences of despatching ill-equipped and inadequately supplied vessels with undisciplined crews. The really unavoidable dangers are thoroughly understood, and most of them can be obviated by modern appliances and experience. Two vessels stationed at suitable distances could keep up communications with each other, and with the whalers which annually frequent the "North Water" of Baffin's Bay, while, under the most unforeseen and improbable contingency, a safe retreat would always be kept open.

There is a third feature in the voyage of the *Polaris* which strengthens the argument in favour of exploration by Smith Sound. At the winter quarters, in $81^{\circ} 38' N.$, the climate was milder than it is further south, and animal life abounded, including musk oxen. This account corroborates that of Dr. Hayes, who was able to supply his men with plenty of fresh provisions in the less hospitable region near the entrance of Smith Sound. A Government expedition, with properly organised hunting parties, will be able to obtain considerable supplies of fresh meat, and thus add to the prospect of maintaining the men in health and vigour. Under such circumstances there is no healthier climate than that of the Arctic regions.

These considerations are, it is believed, sufficient to show that the highly important scientific results of Arctic exploration can be secured without undue risk, and with a reasonable assurance that no disaster involving loss of life or health is to be apprehended. The system of Arctic sledge travelling, which is now thoroughly understood, will ensure the examination of a vast extent of new country in various directions, from the wintering positions of the two ships; and the navigable seasons will enable the expedition to obtain valuable information respecting the hydrography of the now unknown seas round the Pole.