

THURSDAY, MAY 27, 1875

THE ARCTIC EXPEDITION

ACCORDING to present arrangements, the Arctic Expedition leaves our shores on Saturday next. We feel that this event is one of no ordinary scientific importance, and, indeed that it is significant, in a high degree, of a change which has come over the ideas of the governors and the governed alike in this country.

While prior Expeditions have advanced knowledge on their way to a high northern latitude, the present one sails to a high northern latitude for the purpose of advancing knowledge. We believe that the Admiralty authorities are fully aware of the importance of this distinction, and that when the final Instructions about to be issued to Capt. Nares are published, it will be seen that although they have been compelled to lay down a route and to state a goal to be reached if possible, the advancement of natural knowledge as opposed to mere topography is recognised as the main object.

All the best hearts in Britain will beat higher at the thought of this noble British attempt to drive still further back the boundaries of the unknown and the unexplored in spite of the obvious perils with which the attempt is surrounded. The work is undoubtedly one of difficulty, and although a combination of past experience and present discipline may be regarded as certain to restore to us at some future day the gallant men now aboard the *Alert* and *Discovery*, it is almost too much to hope that both the ships will run the gauntlet of the ice-barriers both out and home. Capt. Nares, we presume, has, as the Admiralty Arctic Committee recommended, full authority to abandon the *Alert* in 1877 if the exploration in 1876 has been final or her escape be doubtful, and the possible abandonment of both ships is contemplated in the Committee's Report: this shows that the Admiralty has counted the cost, and the fact that the Expedition sails shows us how the benefit resulting from scientific inquiry is acknowledged by the Government.

Were the officers of the ships less devoted to the scientific side of their work, or less capable of undertaking it than they are, they might be fairly alarmed at the parting gifts of the men of science which they have received this week in the shape of Instruments of all kinds, a special Arctic Manual of Scientific Inquiry of some eight hundred pages, and Scientific Instructions in the branches of work to which the Council of the Royal Society attaches the highest importance. The Manual, which has been edited by Prof. Rupert Jones on the biological, and by Prof. W. G. Adams on the physical, side, is supposed to contain the most important information already acquired on the various inquiries to be prosecuted; the Instructions being intended to show in what direction and in what manner this information can be extended.

A glance at the Manual and Instructions, to which we shall take occasion to refer more at length on a subsequent occasion, will make many regret that they are not among those who, if they are incurring risk and undergoing privations, will, during the greater part of their absence, be living in a new world of surpassing interest from a scientific point of view, as well as of soul-stirring

grandeur, not unmixed with awful beauty; a world in which there is almost a new astronomy, where even the colours of the sky are different, and where not only the physicist but the biologist finds fresh wonders at every step.

The Hydrographer of the Admiralty, Capt. Evans, has made a noble contribution to the volume of Instructions, in the shape of three provisional maps of the Magnetic Elements, not only over the whole of the region to be explored, but including Greenland and part of the region to the west of Baffin's Bay and Davis' Strait. The various inquiries to be prosecuted by the officers and the naturalists of the Expedition, Capt. Feilden and Mr. Hart, are dealt with in the Instructions, among others, by Profs. Stokes, Sir Wm. Thomson, Adams, and Tyndall, the Hydrographer, Mr. Hind, Mr. Spottiswoode, Dr. Haughton, Mr. Scott, Dr. Rae, and Mr. Lockyer, on the physical side; and by Dr. Hooker, Profs. Huxley, Allman, Flower, Maskelyne, Ramsay, and Roscoe, Dr. Günther, Mr. Gwyn Jeffreys, Mr. J. Evans, and Mr. Judd on the biological, geological, and mineralogical sides.

Looking at the contents of the Manual, every possible source of information in Arctic Biology, Geology, and Physics would seem to have been ransacked, and the result is a volume which must be of the highest value, not only to those whose only text-book it will be for the next two or three years, but to all who wish for the best information about the region for which the envied explorers sail on Saturday. Among those whose contributions have been printed in the biological department will be found such names as those of Lütken, Mörch, Giesecké, Hooker, Heer, Nordenskjöld, Huxley, E. Forbes, and many others. All the most notable Arctic explorers have been drawn upon, from Sabine and Parry down to Payer and Weyprecht; while contributions will be found from many of the greatest living authorities on such subjects as Meteorology, Physical Properties of Ice, Tides and Currents, Geodesy and Pendulum Experiments, Terrestrial Magnetism, and the Aurora.

It will be sufficiently evident, therefore, that those men of science who were anxious for Arctic exploration, and on whose recommendation the Government have fitted out the Expedition, have done all in their power to make it as complete as possible. The sending of the *Valorous* to Disco with the *Alert* and *Discovery* will not only enable it to start under the best conditions, but will enable a new lustre to be added to the whole attempt, in the shape of biological and temperature observations in the waters passed through on the return journey, waters which up to now have never been explored. For this we have to thank Mr. Gwyn Jeffreys, for unless he had volunteered to superintend these researches, they certainly would never have been made. It is to be hoped that the authorities have not been unmindful of the importance of at least duplicating all observations as soon as they are made and of depositing them in safe places, so that whatever may be the fate of the ships, the loss to science shall be reduced to a minimum.

Capt. Nares and those who accompany him may be assured that though they will be lost to sight for a long time to come, they will be by no means forgotten, all will wish them success, and every hint of news will be eagerly welcomed. May the two crews return "all told."