

THE OXFORD EXPEDITION TO THE GUIANA RAIN-FOREST

A PARTY of scientific men from the University of Oxford, with some colleagues from Cambridge, started on July 19 from London in the *Ingoma* for British Guiana. According to the report in the London *Times* the expedition, which is led by Major R. W. G. Hingston, is composed of zoologists and ornithologists, an entomologist, a botanist and a surveyor, and will principally investigate the wild life of the Guiana rain-forest. The expedition is being sent out under the auspices of the Oxford University Exploration Club. Through the friendly interest of the vice-chancellor, the university gave the scheme its fullest support, and went so far as to vote a grant just after hearing of the deficit in its last year's finances. A very substantial contribution from the Percy Sladen Fund put the expedition on its feet; the Royal Society made a further grant, and help was also forthcoming through the West India Committee and the good offices of the Exploration Club's president, Col. John Buchan, M.P. The Royal Geographical Society and the Royal Botanic Gardens, Kew, undertook the entire expense of attaching a surveyor and a botanist. The Colonial Office and the Governor of British Guiana have been generous in their assistance, and the expedition sails with nothing left undone that any one could do to ensure its success. Much free transport in Guiana has been promised by the Colonial Government, and the cost of the Atlantic passage has been considerably reduced by the generosity of the Harrison Line.

Arriving at Georgetown early in August, the expedition will proceed, with the advice and aid of the government of the colony, to a locality north of the Essequibo, where it will form a base camp from which the surveying party will operate, while the scientists begin intensive work on the spot. A main object of the expedition is to get into the canopy of the rain-forest in order to study at close quarters the many more or less unknown animals which live there, 200 feet above the ground. To this end it is bringing out a variety of appliances, including Schermuly rocket apparatus, B.S.A. line-throwing guns, "dogs and spikes" to hammer into the trunks, and so on; if one method fails another ought to succeed. The generosity of the firms which have presented or lent much valuable equipment, ropes and other apparatus, such as the wireless for communication with Georgetown, enables the expedition to face this task of illuminating the obscure life of the tree-top zone with a minimum of handicaps.

Several of the members must return in October to keep their Michaelmas term, or for other reasons, but about half will remain till December, and will not be home until January, 1930. The expedition is composed as follows:

Major R. W. G. Hingston (naturalist to Third Everest Expedition; second-in-command, entomologist to Oxford University Greenland Expedition, 1928), leader and entomologist.

Frank Buckland (Oriel, Oxford), zoologist.

M. J. Cresswell (New College, Oxford), operator for wireless and tree-climbing apparatus.

J. E. Duffield (Dept. of Zoology, Oxford), zoologist.

S. T. A. Livingstone-Learmonth (Trinity, Cambridge), taxidermist and assistant surveyor.

B. D. Nicholson (Balliol, Oxford; ornithologist to O.U. Greenland Expedition, 1928), ornithologist.

E. M. Nicholson (Hertford, Oxford; ornithologist to O.U. Greenland Expedition, 1928), ornithologist.

O. W. Richards (Brasenose, Oxford, and Imperial College of Science), entomologist.

P. W. Richards (Trinity, Cambridge), botanist.

N. Y. Sandwith (Keble, Oxford, and Royal Botanic Gardens, Kew), botanist.

L. Slater (St. Catharine's, Cambridge), surveyor.

SURVEY OF TIDES AND CURRENTS BY THE U. S. COAST AND GEODETIC SURVEY

A NATION-WIDE plan for comprehensive data regarding the tides and currents of estuaries all over the coast lines of the United States is being worked out by the U. S. Coast and Geodetic Survey. The program for these comprehensive surveys, according to oral announcement made to the *U. S. Daily*, includes the Atlantic and Pacific coasts, on which surveys already have been made and others are in prospect, and embraces among others the Hudson River from the head of navigation at Albany down to the Spuyten Duyvil in upper New York City.

The latest actual operations in carrying on this program are on the Long Island Sound, where for a stretch all the way from Throg's Neck, at Pelham, New York City, sweeping northeastwardly to Orient Point, about opposite New London, Connecticut, Coast Survey parties are now engaged in investigations and observations.

When these are completed, which it is expected will be during September, the same parties will turn back and proceed up the Hudson River from the Spuyten Duyvil to Albany, along the lines of heavy river navigation traffic. Parties also will establish new current stations on the Thames River to aid in the intercollegiate boat races that are regular features on that waterway.

"These surveys," Captain R. S. Patton, director of the Coast and Geodetic Survey, stated orally, "are of the utmost importance from an engineering standpoint, especially in harbor improvements, in sanitary engineering, in bridge building and other activities on the waterways of the country. Besides the Long Island survey which we have just begun and on which we shall continue work this summer, we have finished similar surveys of Chesapeake Bay and its tributaries, Delaware Bay and River, New York Harbor, San