

ANTARCTIC EXPLORATION.

SIR ERNEST SHACKLETON'S PLANS.

SELECTING THE STAFF.

(From Our Special Correspondent.)
London, February 6, 1914.

The whole of the appointments in connection with the Imperial Trans-Antarctic Expedition have not yet been made, and certain appointments in connection therewith are depending on permission being given by the Admiralty and the War Office. Sir Ernest Shackleton expects to have a new ship, which has been built in Norway especially for use in the Weddell Sea, and it has been practically determined that the Aurora, which is at present engaged in the Antarctic, shall be the Ross Sea ship. The staff chosen so far are:—Sir Ernest Shackleton, head of the expedition, aged 39; Mr. Frank Wild, second in command and surveyor, 39; Mr. George Marston, artist, in charge of clothing and sledges, 31; Lieutenant A. E. Macintosh, probably leader of the Ross Sea depot party, 33; Mr. A. Cheetham, third officer on the Weddell Sea ship, 36; Captain Orde Lees, Royal Marines, head of the motor school at Deal, expert Alpine climber and instructor in physical training, who has accepted pending the decision of the Admiralty, 35; Mr. Ernest Joyce, in charge of dogs on Ross Sea side, 39; and Captain J. K. Davis, in command of the Weddell Sea ship, 41. For the scientific staff applications have been received from several members of the Scott expedition, and it is practically certain that a number of his party will go. Applications have also come in from members of Dr. Mawson's present expedition, and two men with that explorer in Adelie Land will be included among the scientific staff. If the permission of the Admiralty is obtained, officers and men from the naval side of Scott's expedition will constitute the ship's staff on the Ross Sea.

The Best Age for Polar Work.

From these appointments it will be seen that Sir Ernest has no particular faith in the old adage "youth will be served" so far as Polar exploration is concerned. He, indeed, has delivered himself of this opinion—"I don't say that a man of twenty-six or twenty-seven may not have the physical endurance of older men, but, taking it all round, I think thirty and onwards is the best age."

Of course, continued Sir Ernest Shackleton, the most valuable men were those of previous experience, because experience was the thing in the Antarctic regions upon which they relied most. It was in the little things, such as the changing of socks, and not having to tell the men that it was best to stick a spade up in the snow instead of letting it lie down where a blizzard might cover it, which contributed to the success of the whole. The two main factors for an expedition were men physically and mentally sound, capable of the great strain which they would have to undergo. Weight and organisation came next.

The Food Problem.

In discussing the question of food Sir Ernest said it had been specifically proved that concentrated foods without bulk were practically impossible for hard work. If one could live and march on concentrated food three-fourths of the problems of polar exploration would be solved. It was an absolute necessity that they should have the highest food value for tissue-forming and heat-forming purposes, with the least possible useless weight. The most useless weight that could be carried was water, which was largely present in most foods.

Sir Ernest stated that some of the food supplies had been chosen already, but the bulk of the food supplies were under consideration, and there he had the assistance of the War Office, who had got complete tables of the food values of every known food and every special food that was or had been on the market. Asked if he believed in variety in food, he replied:—"Not for a march; one's appetite does not require to be tickled on a march; you only require to satisfy it, which I have never yet seen done. The bulk and nutritive value of food are the main things to consider on the march. In winter quarters a variety of food is practically essential, because then men are not doing such hard work, and Nature requires more frequent changes of diet. It is pretty well recognised that the greatest bugbear of polar exploration, scurvy, can be avoided. Food must be of the very best. Fresh meat as a diet throughout the winter is preferable to tinned meat, and is easily obtainable

from seals and penguins, and this can be varied by a certain amount of frozen beef, mutton, &c. Without this variety of food scurvy is almost certain to appear."

Polar Risks Greater To-day.

It will no doubt come as a big surprise to most people to learn that in Sir Ernest Shackleton's opinion the polar explorer of to-day faces even greater risks than his predecessors with their infinitely inferior equipment. This is Sir Ernest's summing up of the situation:—

"In the older days, with their poorer equipment, the polar explorer had not such a large radius of action to cover; he knew the limits absolutely of his equipment, and when he came to the end of this he was always in a position whence he could work back to his headquarters; whereas the modern polar explorer takes greater risks, for he advances much more rapidly and much farther from his base. And in the event of anything happening to his equipment, his chances of returning safely are not so great. Briefly put, the point is this—you go to your limit in the modern method, and then you come down to the human draught animal, and have the same discomforts, hardships, and dangers as obtained in the earlier days. Where we gain an increased comfort, which is only recognised as meaning increased efficiency, is in the cooking. In early days it used to take two hours to cook a breakfast, whereas now our meal is cooked in 20 minutes. In the old days, again, it would take an hour or two to build a snow hut to camp in at night; now we put up our tent in five minutes."

THE STACKHOUSE EXPEDITION.

PURPOSES AND PLANS.

The main purpose of the British Antarctic Expedition, 1914, which is being organised by Mr. J. Foster Stackhouse, F.R.G.S., is to determine the coastline of King Edward VII. Land on one side of the Antarctic circle and Graham Land on the other. Between these two sections of discovered land stretches a vast and practically unexplored region. Is this intervening space land, or sea forming a strait which separates King Edward VII. Land from Graham Land? Is King Edward VII. Land part of the great Antarctic continent, or is it merely a small island or group of islands in the frozen sea?

These are the two principal problems Mr. Stackhouse has set his heart and mind on solving. The existence of Graham Land and of Coats Land, Enderby Land, and Kemp Land on the Antarctic border of the Great Ice Barrier, as well as the discovery of land south of a small bay 77 deg. 48 min. south and 34 deg. 39 min. west by Lieutenant Filchner in the German Expedition of 1911, support the continental theory. On the other hand, the great area of pack ice massed on the north and west coasts of King Edward VII. Land points, in Mr. Stackhouse's opinion, to the drift of ice northward from the Weddell Sea to the Ross Sea through some strait separating King Edward VII. Land from Graham Land.

Mr. Stackhouse assures us that in exploring this region his expedition will be operating in the most southerly of British possessions, for he tells us that the whole region between meridian 20 degrees west and meridian 80 degrees west is British territory. Probably he is correct, but in any case it is highly improbable that any nation will train its big guns on poor little England in order to bully her into relinquishing her claim upon this particular patch of the world's surface, or that in days to come, when Australia and New Zealand really and truly rule the Pacific waves, they will have to apply a sort of Monroe doctrine to the area in question. Mr. Stackhouse believes that the information his expedition will be able to obtain as to harbors, whaling stations, and sealing grounds in this area will be of great service to the whaling industry of the Falkland Islands.

To Sail in August.

Arrangements are being made with a view to the expedition leaving the Thames, if possible, on August 1, and the Discovery, Captain Scott's stout old ship, is now lying in the South West India Dock, awaiting a thorough refit in readiness for her next clashing with Antarctic ice. The officers and crew of the ship will number 25, and in addition five or six scientists will be attached to the expedition, whilst several of the ship's officers will undertake scientific observations.

Mr. Stackhouse has made a number of appointments to his navigating and scientific staff. Lieutenant A. E. Harbord, R.N., who has been lent by the Admiralty, will command the Discovery. The first officer will be Lieutenant Richard H. Garstin, of the Royal Indian Marine, and

IT BLEW SOME

NINETY MILES AN HOUR

THE BREEZES MOVE DOWN UNDER

MORE ANTARCTIC EXPERIENCES.

Since the gallant little wooden ship Aurora dropped her anchor in the port there has been much hero worship in Adelaide. Not that the polar explorers hanker after notoriety, but the average Australian delights in enshrining manly idols, be they footballers or Antarctic explorers.

For a fortnight public attention has been focussed on the returned members of Dr. Mawson's Antarctic expedition. It is a case of the men having greatness thrust upon them, for they are, of all men, the most modest. Last evening the Adelaide branch of the A.N.A. welcomed the three South Australian boys—Messrs. C. T. Madigan, P. E. Correll, and A. J. Hodgeman—there being a large attendance of members of the organisation at the Institute, North terrace. Senator O'Loughlin, Mr. H. R. Gelston and other members of the board of directors welcomed the visitors.

Where the Gentle Breezes Blow.

Cecil Madigan is a retiring hero. He gives one the impression that he talks because he is expected to. Last evening he told his auditors something about the spot where the gentle breeze sweeps along at the rate of 100 miles an hour, and it takes a strong, hefty man all his time to crawl along on his hands and knees. Adele Land holds the record for wind velocity. "It is one of the most weird parts of the earth," declared the speaker, referring to the landing place on that land. Meteorological men smiled unbelievably when the members of the expedition spoke of the strength of the breeze, and even Captain Davis, that experienced Antarctic navigator, laughed when first told of it. "You don't get those winds here, sir," asserted he on putting in at the main base one fine day, the first experienced for months. A blizzard which lasted 10 days happened along 24 hours later, and the skipper then believed the story. On those 10 days the breeze reached a velocity of 60 miles, and occasionally reached the 80 mark. Captain Davis was compelled to put out to sea, for the Aurora, stout ship as she was, could not withstand the icy blast. It was surely the irony of fate that the day after Mawson and his men were left to "cool their heels," as Madigan put it, at the main base for another year, the blizzard blew itself out, and the weather became fine again. The average wind velocity for the second year averaged 49.8 miles an hour. On one occasion it maintained a velocity of 75 miles per hour for three weeks on end, and occasionally it reached 90 and 100 miles. The "boisterous" weather lasted nine months, all the work having to be accomplished during the three months' "fine" weather, when the wind averaged only 40 or 50 miles an hour. Madigan's auditors agreed that Adele Land was not a very desirable "pleasure resort."

A Commercial "Possibility."

Madigan sees commercial possibilities in those 90-mile breezes. "Think of the enormous wind-power going to waste," remarked he, taking the audience into his confidence. "Why not utilise it?" he added. Sometime in the future—it may be hundreds of years—it may be decades only—people will live in Adele Land and utilise the wind-power for manufactures! Such is Madigan's dream.

Naturally the members of the party found it somewhat difficult to move about outside. It took half an hour to prepare for a five minutes' excursion. "The spikes on our boots resembled miniature harrows," observed the speaker. "The terrific wind brought along clouds of snow from the southern ice regions," he went on, "and half the time we could not see a yard outside owing to the blinding snow. One member ventured 10 yards away from the hut on one occasion to examine the meteorological instruments, lost his bearings, and spent a couple of uncomfortable hours groping about in the storm before finding his way back to the hut."