you were coming up to play, to make a faint little ineffectual struggle-to write some nonsense which you call poetry, or some utter rubbish in the form of a would-be novel, which was to go the rounds of the publishers. Forgive me; that is what amateurs and uneducated girls are always trying to do, and are always failing over, and you, Emmy, you have always seemed to me such a child-I did not know it was in you to take a brave step of this kind. If you are going to be a professional, you have all my sympathy, and I will give you what help I can-there!"

"You are made now, Emmy," said Dorothea-"when Helen takes a girl up, things are sure to go well with her-she is at least one strong piece of consolation to rely upon-Helen never lets go."

"I shall tie a string round you, and keep you to my

side," said Helen, with a low laugh.

"Listen, girls," said Emmy, springing suddenly to her feet. "I was left a fortnight ago a legacy of one hundred pounds. It was left to me by an old cousin, who we never thought had money to give to any one -just one hundred pounds-a large, delightful sum; half of it goes to mother, to help her in her difficulties-the other half is mine. Can I learn a trade? -can I learn anything by which I can respectably and comfortably make money just with fifty pounds? for I don't mean to spend any more."

"It's a lot of money," said Dorothea, who never kept the family purse, and therefore knew nothing.

"Fifty pounds will go a very short way," said Helen. "Fifty pounds is a very small sum to achieve so large a purpose."

"It is all I've got," said Emmy stoutly, "and it must be made to do-I won't touch mother's fiftyit is to give her comforts-a holiday now and then, a feeling of rest always. I must sink or swim with my own fifty-the other I no longer regard as my

"Bravo!" said Helen. "You are appearing before me in a new light, Emmy-I respect you-you shall succeed."

"But, Emmy," said Dolly, in that full rich voice of hers, "I did not know that you were going to join the band of single strong-minded women-I thought you were engaged to be married."

"So I am," said Emmy, the colour coming into her cheeks. "I'm going to be Frank Redfern's wife, and this is his ring which I wear on my finger. Is

not it a beautiful diamond?"

"Then you will leave us?" said Dorothea; "just when you are beginning to be a credit to us all you will go away, and think of no one but your husband and your house and your servants, and what is the very nicest thing you can give that good man for dinner."

"How sweet that day will be!" said Emmy, her eyes shining-" I long for it, I am impatient for it, but I won't go away from you-no, no. Why should not a woman who has a husband help others and do good? Oh," she added suddenly, the bright look leaving her face-"that day is a long, long way offdon't let me think of it to-night, or I shall get impatient and discontented."

"And that would be the height of folly," said Helen, almost brusquely. "Sit down, Emmy, and let us talk; I have just five minutes left, and we have a great deal to say to each other."

END OF CHAPTER THE FIFTH.

"GOING TO THE SOUTH POLE."



"A WALL OF ICE A HUNDRED AND FIFTY FEET HIGH" (/r. 399).

HE fact that the Australians have asked the help of the Mother-country in preparing an expedition to the South Polar regions, has been welcome alike to zealots for science

and lovers of adventure. Whether we believe that much can be done, or little, we must agree that ours is the nation to do it, as it is also the nation that has done almost all which has as yet been achieved in Antarctic regions.

The way to the North Pole lies along the shores of countries which, though inhospitable enough, are not wholly uninhabited, and the southern parts of which



THE PASSAGE OF THE "EREBUS."

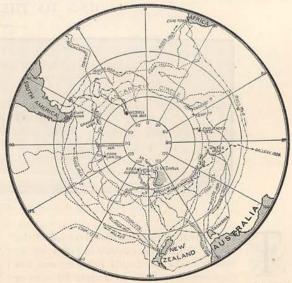
join on to the lands where our civilisation took its rise, and where it prevails at present. But the South Pole is separated from the rest of the world by a waste of waters a thousand miles wide; and the shores which these waters wash have never, so far as we know, been inhabited by civilised races till modern times. For though the old story of the Phœnician voyage round the Cape of Good Hope, which Herodotus doubted, is probably true, and although certain discoveries in South Africa seem to show that some parts at least of the Dark Continent have not always been so dark as we fancied, yet neither there, nor on the bleak rocks of Cape Horn, nor by the desolate shores of Australia can we suppose that any people has ever lived, of power and ambition enough to defy the icebergs of the Antarctic seas. And it is therefore much less strange that the first Antarctic expedition should have sailed only about a hundred years ago, than that the last should have sailed more than forty years ago, especially since this last had results of an exciting nature.

We are now so well used to the knowledge that the greater part of the world's surface consists of water, and that what land there is lies mostly in the northern hemisphere, that we do not easily understand why our fathers were so slow to believe it. Seeing that, as a matter of fact, the South Pacific does not, at any rate in habitable latitudes, contain a "Terra Australis Incognita," we wonder why our ancestors should have been at the trouble of putting one in their maps. It did, however, strike them as strange that what was known to happen in one hemisphere could not be found to happen in the other; and in scientific circles during the last century there prevailed a strong belief, that beyond the untravelled regions of ocean some vast body of land must exist, which should act as a counterpoise to the continents of the northern

world. Three hundred years ago, the islands now called the New Hebrides were supposed by their first discoverer to be the northern edge of this great south land; and even the famous voyage of Abel Tasman, who in 1642, coming from the west, landed in Tasmania and saw New Zealand, left it uncertain whether a great continent did not exist in the South Pacific, far bevond the eastern limits of Australasia. It was to settle this question that the prince of navigators, Captain Cook, sailed forth on his second voyage.

It is well known that James Cook, an English sailor of the prosaic eighteenth century, who began life as a collier's apprentice, was regarded as a god in the remote Pacific, where such traditions of him have lingered to these days that, only a century after his death, the modern traveller Baron von Hübner calls him a "legendary person." Certainly, few heroes of legend have performed a harder task than the great navigator and his sailors in searching the edge of the south polar seas for land.

Cook seems himself to have had no great expectation of discovering a Terra Australis. For on his former voyage, that which revealed New South Wales, and which may be said to have given Australia and New Zealand to the English nation, he had sailed through so much of the ocean as to have made quite sure that there could be no southern continent large enough to counterbalance the northern, and seeing that there was no reason for any he began to suspect there might



MAP OF THE SOUTH POLAR REGION, SHOWING THE ROUTES OF VARIOUS EXPLORERS.

be none. He sailed from the Cape, then a Dutch possession, and, much to his surprise, was among icebergs and in a temperature below freezing-point before he had made twenty degrees of southing. He kept, however, on his course, thinking that the innumerable penguins which swam after his ship and waddled on the ice-floes, could not have come very far from some land, and on January 17, 1773, the Antarctic Circle was crossed for the first time in history. Soon afterwards, however, Cook was turned back by a vast icefield, and though in cruising for hundreds of miles to the eastward, along the sixtieth parallel, he endured storms and cold of frightful severity, he made no nearer approach to the Pole till the following year, after refreshing himself and his crew among his cannibal friends in New Zealand. In this next season the weather was much less severe; and on January 30, 1774, in about 110 ° of west longitude, Cook reached the latitude of 71° 10', which for fifty years remained the highest attained by man. At this point thick ice barred his way, and, though ready "not only to go further than any one had been before, but as far as it was possible for man to go," he was obliged to finish his researches after the fabled south land in warmer waters.

We need not follow Cook farther. During the voyage his crew had been continually discovering islands, which turned out to be icebergs; coast-lines, which were found to be fog-banks; mountains, which resolved themselves into clouds. Cook, unlike some that followed him, would not let himself be deceived by these phantoms, and claimed only to have arrived at the edge of ice which he believed must extend to the Pole. "Yet, I think there must be land behind it!" he concluded; and theory as well as observation justifies his conclusion. Huge icebergs, such as those of the southern seas, rising two or three hundred feet from the water, can only, it is believed, be formed on land, such a glacier-covered land as Greenland in the Arctic Ocean. The home of the Antarctic icebergs remained to be found.



The whalers and sealers who alone came to haunt the southern seas, before Australia's pastoral wealth was made known, or her mineral wealth suspected, found indeed many desolate islands, the haunt of the albatross and penguin, which, like the dreary Kerguelen Land, described so often by travellers, are generally considered as Antarctic, though they really lie often as far from the South Pole as England from the northern. It was a Russian, Bellinghausen, who in 1821 first found land within the Antarctic Circle, in about latitude 68°. It was a tiny island; but for twenty years it was the most southerly land known to man.

Two years after its discovery, our countryman, Weddell, made the first advance beyond Cook, reaching the latitude of 74°, not very far from the meridian of Cape Horn. And in 1831 and 1833, Biscoe, commanding a whaling vessel of the well-known merchant Enderby, discovered, almost on the Antarctic Circle,



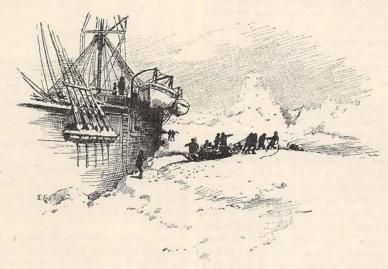
"ISLANDS WHICH TURNED OUT TO BE ICEBERGS."

Enderby Land, and Kemp Land, in the longitude of Madagascar, the extent of which countries is still unknown.

The golden age of Antarctic discovery arrived when Captain, afterwards Sir James Ross, was despatched from England in 1840, to fix the position of the south magnetic pole, and any other position he could discover on the way there. Before Ross could reach the scene of his labours, other explorers, English, French, and American, were busy forestalling him. Of these the first was the Englishman, Balleny, who sailing in Enderby's ship the Eliza Scott, discovered in 1839 the islands which bear his name, and which lie almost under the Antarctic Circle, and almost due south from New Zealand. Balleny could not land on the islands, but he made sure of their existence, and afterwards,

westward along the edge of the pack for a few days, he made sure that he now saw land, and somewhat inconsequently assumed it for certain that what he had seen before was land also. The discovery of an Antarctic Continent was announced as a certainty; a very large land, with a barrier of ice before it, and a range of mountains upon it, was laid down on the map; and a copy of the map was handed by the rash but generous explorer to Ross, who left Tasmania in the autumn of the same year to look for the magnetic pole, with the two ships *Erebus* and *Terror*, which afterwards bore Sir John Franklin to his fate at the other end of the world.

Ross had so little doubt that the Antarctic Continent was discovered already, that he seems to have been almost disappointed when his way to the magnetic



A SLEDGE EXPEDITION.

sailing far to the westward, he saw many more signs of land, and suspected the existence of much which he could not certainly vouch for. What Balleny thought he saw was probably much what the French expedition under Dumont d'Urville actually did see in the following year, several long lines of coast, which might be joined to one another, and might even run on to join Enderby Land in the west, and if so might certainly be parts of the Antarctic Continent that D'Urville was anxious to find. Not less anxious was Wilkes, the leader of the United States Exploring Expedition, who, only a month after the Frenchman, arrived within a degree or two of the Antarctic Circle, to the south of New Zealand, and after seeing land where Balleny had certainly seen it before, began to fancy that he saw it also where none had seen it before, and, unfortunately, where no one has seen it since. For some days, indeed, Wilkes doubted whether what he beheld were mountains or clouds, objects which his crew watched eagerly, to see if with the setting of the sun they would change their colour. But after running

pole was barred by an unknown land. Yet this land, which lay south of the seventieth parallel, and eastward of Balleny's Islands, was the most southerly hitherto seen in the world, and on it rose mountains thousands of feet high, plain and mountain alike robed in stainless snow, except on the cliffs by the shore, where the black rock came out. The coast ran almost due north and south, and along its eastern face Ross advanced steadily till he had beaten Cook's record and also Weddell's, and gone further south than any before him. But he could find no landing-place on the mainland, so choked was every inlet with snow and ice; only on a small island were the adventurers able to touch Antarctic earth, a few men among thousands of screaming and biting penguins. Fresh mountains came constantly into view as they moved southward; at last one in latitude 77°, over which what seemed a cloud of snow was blowing; but when they came nearer they saw that the cloud was smoke, and gave the name of Mount Erebus to a giant volcano higher than Etna, which belches forth smoke and fire in a land where all

things are frozen. Before Mount Erebus lies Cape Crozier, and round Cape Crozier, Ross hoped to find a way to the westward, so as to reach the magnetic pole by the back of the new land he had found. But as they approached they saw stretching from Cape Crozier "as far as the eye could discern to the eastward," a "low white line," the nature of which they did not understand till they came close enough to see the truth with their eyes. It was a wall of ice a hundred and fifty feet high, without break or slope, but one glittering perpendicular steep, through which, as Ross said, one might as easily pass as through the cliffs of Dover. Along this gleaming rampart Ross ran eastward for 250 miles, and in the succeeding year, 1842, for 200 more without coming to its end, on both of which occasions he reached the high latitude of 78° south, which has never since been approached by any man.

Such is the famous barrier of perpetual ice which guards, and perhaps will ever guard, the secrets of the great southern continent. Only in one place was it possible for those on the mastheads to see what was on the top of it, and the surface appeared to be "an immense plain of frosted silver." That anywhere behind it there may lie an ice-free land with vegetation upon it, such as Nordenskiöld sought vainly in Greenland, but such as Greely's party did actually find in Grinnell Land, it is easier to hope than to believe.

Ross had discovered the Antarctic Continent, in which men still believe, and it remained for him to disprove the existence of that in which they had then begun to believe. After leaving the barrier for the first time, he sailed westwards till he saw Balleny's Islands, and then, with Wilkes's chart before him, he looked ahead to catch sight of Wilkes's land. But, though officers and men crowded into the mastheads

of the *Erebus* and *Terror* tney could see nothing, and when they had crossed the place of the ice-barrier described in the chart and were sailing along the mountain-chain, they understood that there was nothing to see. Thirty years later the *Challenger*, during her famous cruise round the world, ran up to within a few miles of where the further or western end of Wilkes's land should be, but her crew saw no land nor any trace thereof. "Termination Land" therefore disappears from the map, as a false creation of clouds and fog-banks.

Space does not allow a description of Ross's further adventures, of the collision between his ships in a sea of heaving ice, or of the perilous passage of the *Erebus* between two huge meeting icebergs, like the Wandering Rocks of the old Greek legend. It must suffice to say that, circumnavigating the globe, he found yet more land to the south of Cape Horn, where some had been seen and named by French explorers before; but this land lies not much beyond the Antarctic Circle, and its full extent is unknown.

For though this "Graham's Land" was visited by a German vessel some years ago, it does not appear that since the days of Ross any new discovery in Antarctic regions has been made. "No man has ever wintered there," no one has carried on the researches into the earth's magnetism which Ross then made. The Australian Committee has ascertained that the whalers and sealers of the Antarctic never venture into high latitudes, fearing the rough seas and fields of ice. But the Australians, as is natural, look with the more interest towards that unknown country, where the Glacial epoch still reigns, the home of the cold wind and the icebergs, which an Australian poet calls—

"The white south land Alone with God and silence."

E. J. WEBB.

THE GARDEN IN JUNE.



GARDEN in June is naturally a delight.

If it is not in its glory then, it never will be, and that wonderful whiff of fragrance—the combined product of the new-mown hay and the full-blown rose—that rushes in through our open bed-room window in the early morning makes it next to im-

possible to remain indoors. But we are not just now going hay-making, or we are too much occupied in our rose garden; and of our roses we must first say a good deal this month, before we can pay attention to the numberless items in the kitchen, flower, and fruit garden that in June have quite as great a claim upon our care.

And the subject of the cultivation of roses is a wide

one—so wide a one that into elaborate detail we cannot afford to enter. To begin then at the beginning, let us talk of the soil first. A good deep loam is the best adapted for rose-growing, and plenty of well-decayed manure dug in about November is a necessity, while good drainage is certainly another. The writer has in his memory now a lovely rose garden, well sheltered on the north and north-west by a small avenue of trees, but catching all the early morning sun, and looking both south and south-east. Let us say in passing that protection afforded by trees is one thing, but overshadowing by trees is another and a disastrous thing. The plants that will thrive under the drip of overhanging trees could probably be counted on the fingers of one hand. And in the wild autumn weather, say about the end of October, we begin to look about us for stocks-for we are just now supposing the case of