

## SOME RECENT EXPLORATIONS.

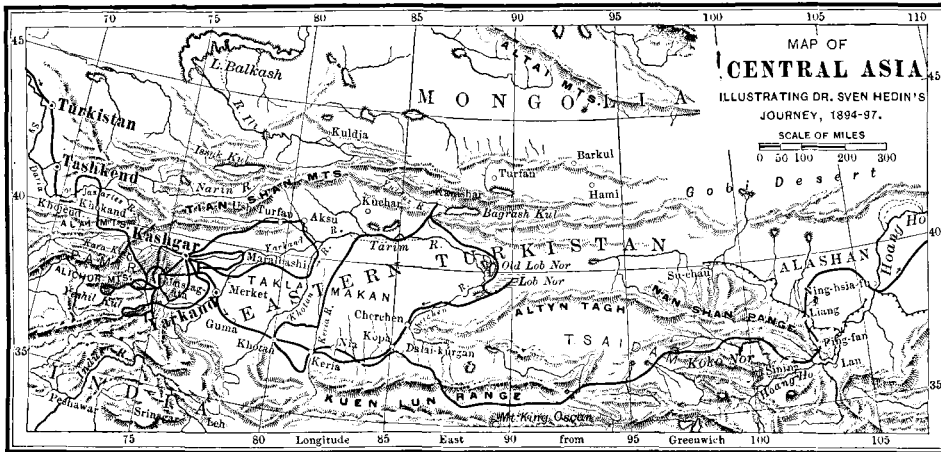
BY J. SCOTT KELTIE, LL.D., SEC. R. G. S.

THE period extending from 1430 to 1530, which included the circumnavigation of Africa, the discovery of the Cape route to India, and the revelation to Europe of a New World on the other side of the Atlantic, has been aptly designated the "Century of Discoveries." It was a period of unprecedented activity in exploration, and nothing since has equalled in magnitude and novelty the circumnavigation of Africa and the discovery of America. But, so far as the fever for exploration is concerned, the increasing number of those who are smitten, and the interest and value of the results, the century which is so near its close may vie with that of which Columbus was the central figure. When we compare a map of the world in the beginning of the century with a good map showing our present knowledge of the earth's surface, some idea may be obtained of the vastness of the progress which has been accomplished. In actual extent and scientific value the exploring work of the expiring century will bear comparison with that of any previous one.

Nearly every country in Europe has been or is being trigonometrically surveyed. In Asia vast progress has been made during the century in laying down with approximate accuracy the great features of that stupendous continent. India has been accurately surveyed, and that survey has been carried east and west into the extensive regions within the British sphere. Central Asia has been traversed by an army of explorers, mainly Russian and British, so that its vast plateaus and its gigantic mountain systems are now mapped in their main features. So also with its great river systems, its interesting lakes, and its desolate deserts. Still there is room enough for pioneer exploring work in this ancient continent for many years to come. Even the central plateau and the great mountain systems which dominate it afford an ample field for further research, which must be undertaken before they are adequately mapped. The mountain

ranges on the east and northeast of Tibet, the magnificent river region which extends northward into the interior from the Indo-Chinese Peninsula, are little known. Much yet remains to be done in the region watered by the Oxus. The great central deserts, as Dr. Sven Hedin has shown, conceal beneath their sandy wastes the rich remains of ancient civilizations. Even the maps of western Asia contain much hypothetical geography, and the Siberian coast is still most inaccurately laid down. Southern and central Arabia is almost unknown, and the venturesome explorer who succeeded in making his way in a bee-line from Aden to Muscat would perform a feat worthy of the highest recognition. Thus, notwithstanding all that has been accomplished during the century, the occupation of the explorer in Asia will not be gone for generations to come.

In quite recent years Central Asia has been the scene of some of the most remarkable expeditions on record, so remarkable that most of them have been considered worthy of recognition by the award of the much-coveted medal of the Royal Geographical Society. We cannot omit to mention among these, as holding a place of high honor, the two expeditions of the Hon. W. W. Rockhill, now United States minister in Greece, who approached to within a short distance of Lhasa, traversed hundreds of miles of unknown land in eastern Tibet, and made a profound study of Tibetan religion, customs, and history. Prince Henry of Orleans and M. Bonvalot about the same time crossed the country from north to south. Shortly after, a young British officer, Captain Bower, traversed the lofty Tibetan plateau from west to east. More recently, Mr. St. George Littledale and his brave wife entered Tibet from the north, approached to within a day's ride of the forbidden city, and but for the prostrate condition of Mrs. Littledale they would have forced their way into Lhasa. They turned west and came out by Ladak. Unfortunately, though often urged to do so, Mr. Littledale has never



given to the world a detailed narrative of this and his other almost equally remarkable journeys in Central Asia; his story has been told only in the *Journal* of the Royal Geographical Society. About a year ago two young British officers, Captain Wellby and Lieutenant Malcolm, crossed the central plateau from west to east on a more northerly route than had been done before.

But perhaps two of the most noteworthy expeditions of recent years are those of Dr. Sven Hedin and Mr. A. H. Savage Landor, each, however, noteworthy for very different reasons.

Dr. Sven Hedin devoted nearly as many years to his patient work as Mr. Savage Landor did months to his dash at Lhasa. Dr. Hedin is in many ways a remarkable young man; he is only thirty years of age. He was barely twenty when his innate love of adventure took him to Asia Minor and northern Arabia. After returning to his native land, Sweden, he completed his education, undergoing a thorough training in those departments of science on which geography is based; he studied for a time at Berlin under the great explorer and geographer Baron von Richthofen. In 1889-90 Hedin visited Persia, and went on to Kashgar; he ascended the lofty and interesting Mount Demavend, 18,600 feet, on the south of the Caspian. All this was only preliminary to the great undertaking which has placed him in the front rank of explorers. On his return to Sweden he obtained the support of King Oscar and one or two private individuals

for an exploring project, by which he proposed to visit some of the least-known regions of Central Asia. He set out in October, 1893, and spent the greater part of 1894 in investigating the climate and glaciers of that complicated mountain mass the Pamirs, "The Roof of the World," across whose barren heights England and Russia are constantly watching each other. He made a careful study of the tributaries of the famous Oxus. The loftiest height of the Pamirs is Mustag-ata, rising 25,000 feet, on the eastern border of the plateau, with five rugged peaks and several magnificent glaciers. Dr. Hedin was ambitious to reach the summit of the loftiest of the striking peaks of "The Father of Ice Mountains," and had he done so he would have become the record mountaineer.

The Kirghiz of the district have many legends about this remarkable mountain, some of which, no doubt, Dr. Hedin will tell in his forth-coming narrative, which cannot fail to be of the highest interest. We can only briefly refer to one of these.

They told him "that only an old *ischan* had, many hundred years ago, ascended this holy mountain. There he had found a lake and a river, on whose shores a white camel grazed. In a garden where plum-trees grew in great abundance old men were wandering about in white garments and with long white beards. The *ischan* ate of the fruit of one of the plum-trees, and then an old man came up to him and said that this was fortunate for him, for, had he despised the fruit, he would have been compelled to stay eter-

nally on the mountain like the other old men. A rider on a white horse then took him on his saddle, and rushed off down the steep descent with him. When he came down into the valley he had only a faint recollection of what had happened."

This will afford some idea of the mystery which shrouds Mustag-ata in the eyes of the natives around. Though the simple-minded Kirghiz believed it impossible to ascend the mountain, still they were willing to join in the attempt, and did loyally accompany the traveller, who knew how to win the hearts of the natives with whom he came into contact. Supported by the Kirghiz and with a number of yaks, the common beast of burden of these regions, bearing tents, provisions, instruments, and other impedimenta, Hedin made his first attempt when he reached 16,000 feet. Nearly blind with inflammation of the eyes, he had to descend and make his way to Kashgar. Three months later he made a second attempt, when he succeeded in reaching close on 20,000 feet. So tempestuous was the weather, and so inaccessible looked the remaining 5000 feet, that he descended to gather vigor for another effort. The third time he again reached 20,000 feet, and came to the conclusion that in the rarefied air of that height, with no experienced mountaineers to help him, with his Kirghiz all prostrate, and with the necessity of finding a practicable route by himself, the ascent would involve a waste of time and a risk which he, not a mere mountaineer, but a serious explorer, was not justified in incurring. So he gave it up, and pursued his exploration. But the narration of these attempts, abounding as it is in exciting incident, in dangers incurred by himself and his men, as well as in valuable observations, cannot fail to prove of interest when Dr. Hedin's book appears.\* The succeeding winter was spent at Kashgar, where Dr. Hedin had ample opportunity of observing the curious life of this remote and ancient city. In February, 1896, he started eastward, exploring the country between the Kashgar and Yarkand rivers, making many important observations on this little-known region, and considerable corrections on existing maps. In April of that year he

crossed the dreaded Takla-Makan Desert between the Yarkand and Khotan rivers, a distance of 200 miles. This was the most sensational incident of his very varied experience, and probably one of the most exciting journeys on record. A glance at the map will show that the Takla-Makan is really the western portion of the great Gobi desert, which extends from Manchuria to the Pamirs, and indeed, with but little interruption, right on through Arabia to the Sahara and Atlantic. With his four men and several camels all went well for the first thirteen days, at the end of which a mountain range was reached. Before them stretched the true desert, an endless plain covered with long sand dunes, like a petrified ocean. In four days their water-supply was exhausted. For the next ten days the party groped their way among the endless dunes, sometimes enveloped in an atmosphere of wind-driven sand. Not a drop of water was to be obtained; two of the men went astray and were never seen again; all the camels but one perished; everything was cast away that could be spared. At last, on the ninth day, Hedin sighted a line of trees, crept ahead of the one companion that had been able to keep up with him, and taking five hours to go two miles, reached the dry bed of the Khotan River. After wandering for a time he saw a duck rise in the air, heard the splash of water, and soon found himself on the banks of a pool. No words can describe his sensations. After quenching his nine days' thirst, he filled his long boots with water, and made his way back to his exhausted companion. Shortly after, the other remaining man and the one surviving camel came up, and they made their way back to life again in the town of Khotan.

The details of this terrible journey may be sensational, but they are true. Hedin, with a fresh party, at a later date, crossed the desert again from south to north, to the river Tarim, but his first experience taught him a lesson which he did not forget; no disaster happened the second time. This desert is of the greatest human interest. Though now uninhabited, its sands cover what were once flourishing cities on the banks of rivers that no longer exist. Dr. Hedin has many interesting details to tell concerning them, and it is hoped he will return and make further excavations and explorations in

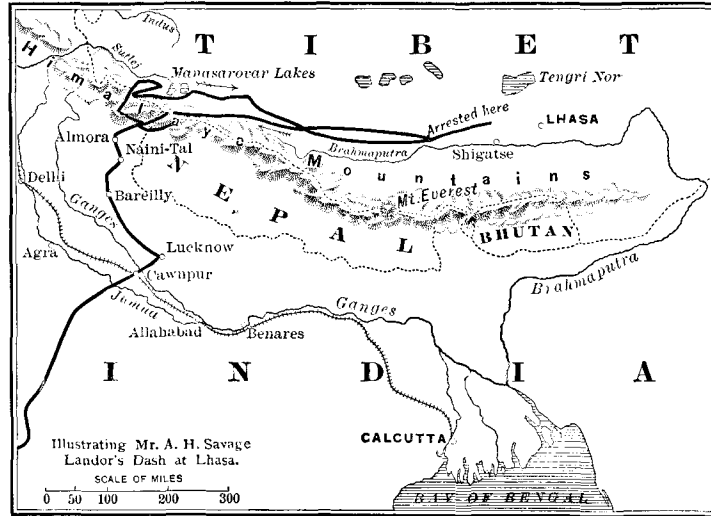
\* For notes from Dr. Hedin's journal concerning this and following expeditions see the opening article in the preceding number of *Harper's Magazine*.—Ed.

this great graveyard of extinct civilizations. But we cannot follow this eager and intelligent young explorer throughout his four years' wanderings over the great Central Asian plateau. From the Tarim he made his way to Lob-Nor, a lake region abounding with mysteries geographical and human. From Lob-Nor he returned to Khotan, and thence made a long and extremely interesting journey through country mostly unexplored and uninhabited, through the Kuen-Lun Mountains and Tsaidam to Koko-Nor, and thence through Alashan and the Ordos country across the Hoang-Ho River to Peking, whence he made his way home by Siberia.

This bald outline may give a faint idea of the great extent and high value of the explorations of this eager young Swede during his four years' wanderings in the heart of the Old World. He brings back with him contributions to geographical knowledge of the first moment, stories of adventure of the highest interest, hundreds of photographs and of sketches from his skilful pencil, and an experience and a training which will stand him in good stead in his further work. Few travellers have had their work so promptly and universally recognized. The King of Sweden has conferred upon him the highest order of merit; the Czar of Russia and the Prince of Wales have received him, and listened with interest to his story; he has told that story to nearly all the geographical societies of Europe, and these in turn have showered their gold medals upon him. He is an excellent lecturer in Swedish, Norwegian, Russian, German, French, and English. Though not much above middle height, Dr. Hedin is of handsome build, with a genial face and winning manner, which, it is to be hoped, Americans may have an

opportunity of discovering for themselves.

The unusual importance of the subject must be my excuse for dwelling at some length on one of the most remarkable exploring journeys of the century. Though



in its way it possesses features even more interesting, certainly more exciting, still the dash made by Mr. Savage Landor at the forbidden city of Lhasa does not require to be referred to at such length. Savage Landor, like Sven Hedin, is a young man. He inherits some of the peculiarities and a touch of the genius of his grandfather, the eccentric author of a past generation. He seems to be more at home in Italy than in England, and spends much of his time when in Europe on his estate near Florence, cultivating his vines and his olives. Though slight in build, his figure and his face, more Italian than English, are striking; intensity seems to be the leading note of his nature. He is impervious to cold, and can take with delight an ice-cold bath at an altitude of 16,000 feet; his powers of physical endurance are extreme, and he had need of them on his last journey. This was not his first exploit as a traveller. Some years ago he wandered alone round the island of Yezo, among the "Hairy Ainos," and wrote a charming book about his journey. He had, in London, an exhibition of his own pictures painted in Japan and other lands of the East, in which the grewsome was prominent. Like



so many other young Englishmen, Savage Landor is never so happy as when he has a dangerous venture in hand. Fortunately he found a sympathetic patron in Mr. Alfred Harmsworth, the generous Mæcenæ who supplied the funds for Mr. F. G. Jackson's expedition to Franz-Josef Land. Mr. Harmsworth is the proprietor of one of the most enterprising and able London newspapers, and it was partly to provide interesting "copy" for this journal that he supplied Savage Landor with the funds to travel in Tibet and make a dash at the great centre of Lamaism, Lhasa. Mr. Landor left England in the spring of 1897. He had at first intended to descend upon Tibet from the north, but finally entered it from north-west India, by Almora in Kumaon. Mr. Landor had obtained a training in the use of the sextant and other instruments, as he wished his hazardous journey to be more than a mere adventure. He desired to explore southern Tibet and the course of the upper Brahmaputra. Naturally the Indian authorities and the Tibetan officials, who so carefully guard their frontier from inquisitive intruders, did their best to prevent Mr. Landor from entering the country. But by a clever ruse he, with the little band of native followers he had succeeded in collecting, with all his instruments, camera, and other impedimenta, contrived to hoodwink the guards, and by a formidable mountain route slipped across the frontier. For a time all seems to have gone smoothly, and Mr. Landor made his way towards Lhasa apparently along one of the head-streams of the Brahmaputra, the upper course of which had hitherto only been observed roughly by the native Indian explorers. Rugged and mountainous as the country is—Mr. Landor says that some of the passes he crossed are 20,000 feet high—progress seems to have been rapid, until all too soon, when apparently among friends, the venturesome explorer was suddenly seized and bound. All his men deserted him except one faithful follower, and the two, under the roughest treatment, were hurried on towards Lhasa. Mr. Landor believes that he must have been within a comparatively short distance of Lhasa when, at the instigation of a high Lama, he was subjected to the cruellest tortures—his body racked, his face roasted, and his eyesight nearly extinguished with a red-hot iron, and ev-

ery preparation made for his decapitation. Fortunately the Tibetans thought better of it, and, after additional tortures, Landor was bound on a pony with a spiked saddle that cruelly injured his spine. He was hurried back to the frontier, where he was met by a rescue party. This is a bare outline of one of the most remarkable adventures of recent times. In the midst of all his sufferings Mr. Landor never forgot the great object of geographical exploration. He succeeded in bringing away with him his notes, his maps, his photographs, his numerous sketches, and his instruments. Even, he tells me, when lying on the ground, bound at night, he contrived to slip out his hands unobserved, and on a scrap of paper, with a splinter of wood, trace with his own blood the course of another head-stream of the Brahmaputra; this curious geographical record he showed to me. To judge from a photograph lying before me, taken just after he was rescued, Mr. Landor's treatment must have been of the most trying kind; I should never have recognized the haggard, corrugated, miserable, unshaven face as that of my friend. Happily, so far as appearance goes, he is now all but restored to his natural well-groomed condition, though he still suffers from the injuries inflicted on his spine by the spikes of his saddle. Apart from the exciting adventures with which he met, Mr. Landor has much to tell of the strange and interesting people with whom he came into contact, and his note-books are filled with observations and rough map-sketches, which lead me to hope that he has added something new to the map of Asia, an object which he never lost sight of.

In no continent has there been such wholesale progress as in Africa, for the simple reason that on none, except perhaps Australia, did so much remain to be done. Even less than fifty years ago the centre of Africa was one vast unexplored blank. The movement instituted by Livingstone half a century ago, and continued by men like Burton, Speke, Stanley, Thomson, and a host of other explorers, has filled our maps with a crowd of striking features, in which the great lakes and the great rivers are predominant. Though accurate surveys are confined as yet to very limited areas in the extreme north and the extreme south, the continent has been traversed in all direc-

tions by explorers' routes, while the European nations that during the last fifteen years have pounced upon this, the last continent that remained to partition, are rapidly acquiring a fair knowledge of the main features and resources of their extensive but not very promising territories. But there still remains much to do in filling up the meshes between the net-work of exploration. Moreover, there is a considerable region to the west and northwest of Lake Rudolf, on the east of the Nile, that is virgin ground. In the western and eastern Sahara there are regions of which our knowledge is extremely scanty, and which present a fine field for the explorer fond of risky adventure.

During the latter half of the century, especially, the various admirable surveys of the United States may be said to have mapped the whole country with more or less accurate detail, and if they are supported by the government with the liberality which they require and deserve, the citizens of that great nation will, at no distant date, have an accurate knowledge of the features and resources of their splendid country. The same may be said of the Canadian Dominion, though there are regions in that territory, mainly beyond the limits of regular settlement, of which we have only a very general knowledge. In South America, also, during the century, there has been great exploring activity, mainly along the lines of the vast river systems of that continent. But between the river courses there are great areas hitherto untrodden by the white man. Through the whole range of the Andes systematic exploration is wanted. In Patagonia, on the east of the northern Andes, in Ecuador, Colombia, southern Venezuela, and northern Bolivia there are great areas which are practically blank on our maps. On the whole, in South America there is a wider and richer field for exploration than in any other continent.

In the beginning of the century only patches of the coast of Australia and New Zealand were known; they are now parcelled out among prosperous colonies, which, it is hoped, will shortly become a great federated dominion like that of Canada. New Zealand has been surveyed; so also have the more settled parts of Australia, while we have a fairly accurate knowledge of its interior, much of which,

it is to be feared, can never be turned to great account.

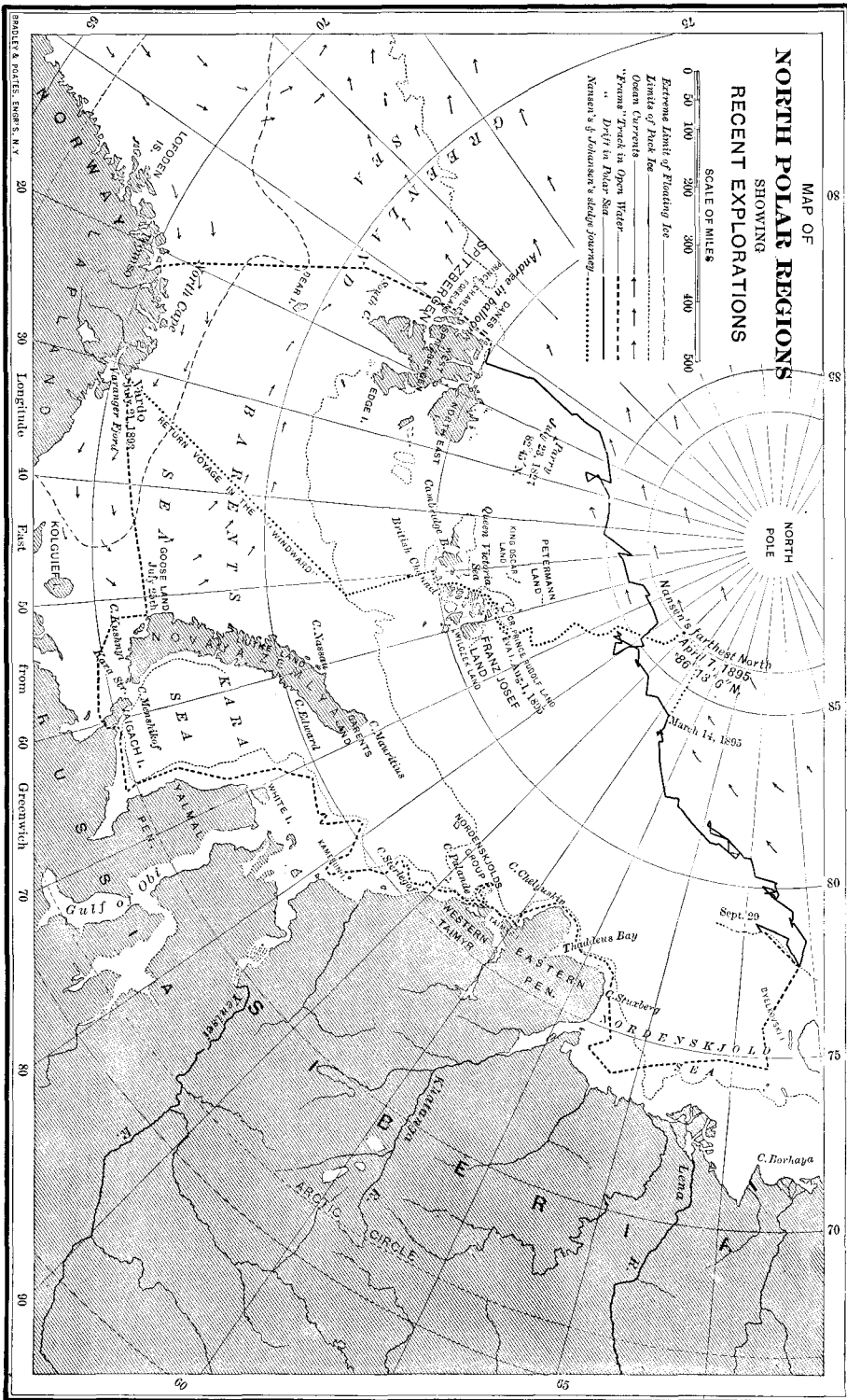
But space forbids more than a bare reference to the knowledge of these three great continents acquired during the century.

As for the Arctic, exploration has been pushed during the century by many heroic pioneers to within 250 miles of the pole, while the northern coasts of the continents have been approximately surveyed, and that enormous archipelago which extends beyond the North American coast laid down. In this work both America and England have borne a noble share, and until quite recently the former claimed the credit of the "farthest north"—Lockwood's  $83^{\circ} 24'$ , some four miles farther than Albert Markham's farthest in the Nares expedition of 1876. This record northern latitude had been attained by slow degrees and painful efforts over a period of 300 years. As long ago as 1594 Barents attained  $77^{\circ} 20'$  in Novaya Zemlya, and in 1606 Baffin  $77^{\circ} 45'$  in Smith Sound. From that time the northing had been made by one degree or at the most two degrees at a time. It remained for a young Norseman to attain not only the highest latitude in the arctic seas, but to cover more ground at one effort by a daring and original plan than had been done since the days of Baffin. The stalwart, massive, well-knit, lithe form, the earnest, but kindly and genial face, and characteristic Norse complexion of Fridtjof Nansen are now familiar to many in both hemispheres. He comes of good old Norse and German stock. For the undertaking which has conferred upon him undying fame he underwent a long and careful preparation. His physical training as a youth was of the hardest; on the snow-covered mountains of Norway he became the most expert ski-runner\* in his native land, an accomplishment that stood him in good stead both on his crossing of Greenland and on his never-to-be-forgotten journey with his companion Johansen over the polar ice. At the University of Christiania, at the Naples Biological Station, as curator of the Bergen Museum, he had a sound scientific training, which enabled him to turn his exceptional opportunities for varied research to rich account. In 1882, when only twenty-one years of age, he made his first Arctic voy-

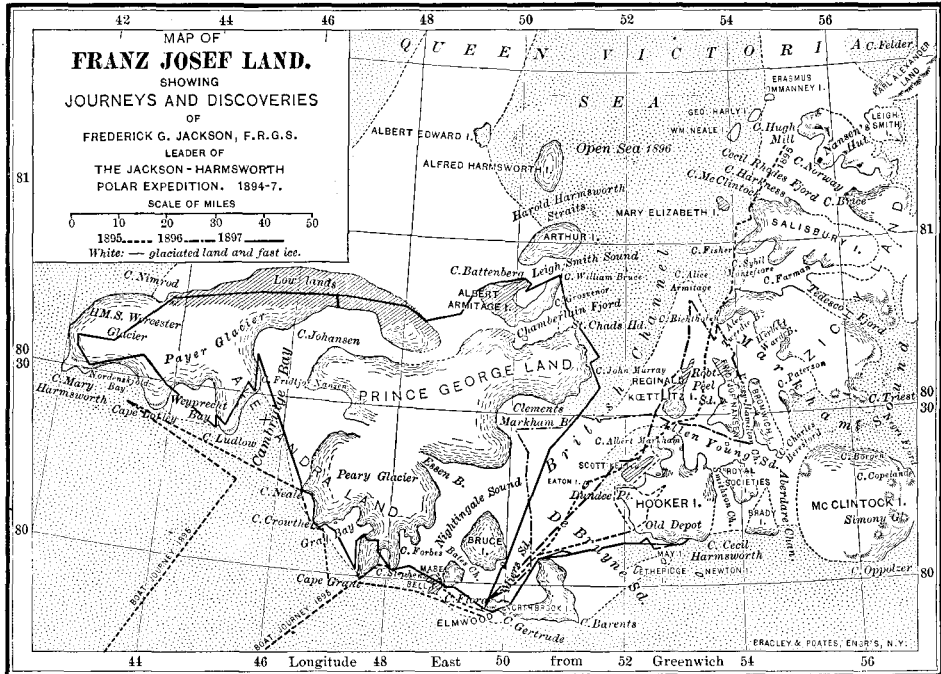
\* *Ski* are the long, narrow Norwegian snow-shoes, over six feet long and about six inches wide.

age on board a sealing-ship to the sea off the east coast of Greenland, where he had his first experience of ice navigation. It was then that he conceived the idea of crossing Greenland, as a preliminary to still more ambitious polar schemes. It was only after six years of studious preparation that in 1888 he started on his expedition across the ice cap of Greenland, with what results every one knows. On his return in the following year his eyes were turned poleward, and he set about laying his plans for the memorable voyage in the *Fram*, of which everybody has read. He accumulated every scrap of available knowledge on the Arctic regions—their ice-conditions, their currents, their winds. He came to the conclusion that a current set north-westward, from about the New Siberian Islands or Bering Strait, towards the north pole; and then turned south-westward towards the East Greenland coast. On this current he resolved to ride across the north polar area and get as near the pole as possible, if he could only obtain the funds necessary for a suitable ship, adequate equipment, and a sufficient number of loyal and competent companions. He had no difficulty in getting money, men, and ship, for Nansen is a man who at once commands confidence. He is entirely free from self-assertion, but he possesses the quiet self-confidence of clear aims and complete knowledge combined with a sound constitution and perfect training. The Norwegian government and wealthy private individuals in Norway supplied the funds, the Royal Geographical Society of London contributing a complimentary £300. The total sum subscribed was £25,000, and much more could have been obtained had it been wanted. The ship itself cost more than one-half of the total; equipment and instruments, £4000; provisions, £2200. Considering what was accomplished, never was there a cheaper polar expedition. In Colin Archer, ship-builder of Larvig, Nansen found a man after his own heart, and between them a ship was built on a plan and of a strength to stand any amount of ice-pressure. As for men, Nansen had hundreds to choose from, and probably could not have made a better selection; all told, including the chief, there were thirteen, certainly a lucky number in this case. As Nansen's own delightful narrative is available to all, it is unnecessary to enter into details here.

Everything turned out in accordance with Nansen's forecast. Before his departure he drew a line across the north polar area, from the New Siberian Islands to the sea on the east of Greenland, and said, "That is how I mean to go." Except that his line was straight and the course of the *Fram* somewhat zigzag, that line was the route followed. The *Fram* coasted with little difficulty along the north of Europe and Asia to near the New Siberian Islands, and was there run into the ice. For nigh three years she drifted, very slowly at first, and with many a backward movement, much to the anxiety of all; but when fairly in the current, all was plain sailing. After reaching 86° north, she turned southwest, and would have come out at Greenland, had not Nansen's faithful friend, Captain Sverdrup, broken through the ice to the north of Spitzbergen, and sailed south to Norway, anxious as to the fate of his chief. For in the spring of 1895, Nansen, doubtful how far north the *Fram* would go, left the ship with one companion, the sturdy and faithful Johansen, in about 84° north latitude, and in about a fortnight attained on foot, with two sledges and dogs, 86° 16', or to within 260 miles of the pole, on the meridian of 90° east of Greenwich. Thus in less than two years Nansen covered three degrees, or 200 miles, farther north than the record position, while in the end the ship itself got nearly as far. It was a brilliant feat which needs no language of mine to enhance it. The gloomiest predictions were made by great Arctic authorities, before he started, as to the fate of the expedition; some thought him mad; one distinguished American Arctic authority called him criminal. All have had to admit that Nansen was right and they were wrong. But the same Arctic authority referred to, tried, after Nansen's return, to brand him for "deserting" his ship. It is a pity that so distinguished a man should have been so biased as to so totally misrepresent the position. Had Nansen remained on board the *Fram*, with all its security, all its comforts, all its luxuries in food and drink, and sent two of his companions on the dangerous quest, he might well have been blamed; as it was, he and his friend who volunteered chose the hardest part. And the hardships they had to endure on this memorable journey over the limitless, desolate, lifeless, restless ice, hampered with hummocks, and







ever and anon split with lanes of water; and still more during that dreary nine months in the dingy hut on Franz-Josef Land—even with Nansen's graphic narrative at hand it is difficult to conceive. The *Fram* itself came safely home a day or two after its chief landed in Norway. It was not only that Nansen attained the record poleward—he has all along stated that in his estimation that was a secondary matter—but during these three years an immense area in the Arctic regions was covered and explored. We know now that no land, except possibly an islet or two, exists to the north of Europe and Asia, apart from the island groups on all our maps. It may be different with that section of the Arctic which lies to the north of America; it is possible, though not probable, that the series of islands which lies off the coast continues northward. It is to be hoped that that most enterprising American explorer, Peary, may solve the problem within the next few years, and do for that portion of the Arctic what Nansen has done for the European section. Again, Nansen found that instead of a shallow sea, as was surmised, an ocean reaching to depths of 2000 fathoms surrounds the pole. Con-

stant observations in meteorology and magnetism, the temperature and salinity of the ocean, were made; specimens of such minute animal life as swarms in the ice-pools were collected, and much other data brought back, all of which will reveal to scientific investigators the true character of the ice-bound North. To some, perhaps, the most interesting of all the results is the influence which the weird, the awesome solitude of three years, "far from all men's knowing," amid surroundings that recall the ice age of the past or anticipate the sunless globe of the future, had on an intelligent and inquiring mind. In my estimation, the extracts from his diary in his book, written amid such influences, are as interesting in their way as any part of the narrative. Though Nansen has done so much, there is still abundant room for enterprise. The pole itself will be reached without doubt, and those of us who know Peary feel assured that if he has the opportunity he will do it. Apart from that, there is plenty of room in the Arctic for research by the qualified scientific investigator, both in the sea itself and on its islands, whose rocks and fossils may throw some light on the past condition

of a region that at one period may have teemed with sub-tropical life.

A year after the departure of the *Fram* from Norway another expedition left the shores of England, bound for the same section of the Arctic, and with a more distinct aim of reaching the north pole. Not by the bounty of the British government, but by the generous enterprise of a private individual, Mr. Alfred Harmsworth, was this expedition fitted out. It is believed to have cost Mr. Harmsworth as much as did the expedition in the *Fram*. Although he is the proprietor of several journals, it was not as a journalistic enterprise, but simply from love of polar exploration, that he equipped this expedition, and the news of its progress was freely distributed among all newspapers. The expedition was under the command of Mr. Frederick G. Jackson,\* who had had some experience in the ice on board a whaler. Its destination was Franz-Josef Land, the group of islands lying to the east of Spitzbergen in about 80° north. It sailed from the Thames in the *Windward* in the early summer of 1894. The whole expedition did not consist of more than eight men, but these were selected with the greatest care. The scientific equipment was most complete, and all the instruments of the very latest make. At Cape Flora, on the south of one of the islands, the houses were erected, and the party, when at home, were as comfortable as they could be. Mr. Jackson shared with others the belief that probably Franz-Josef Land extended far to the north, perhaps in a more or less broken series of islands to the neighborhood of the pole. His plan was to make a series of preliminary journeys northward for the purpose of planting depots to serve in case of need when the final attempt was made to reach the pole. But, in his early journeys, Mr. Jackson soon discovered that this was a mistake, and that on the west there was no land much beyond 81°. Naturally, the idea of reaching the pole in this direction had to be abandoned. Mr. Jackson devoted himself to exploring Franz-Josef Land, and to the record of scientific observa-

tions. Thus, in the several arduous journeys which he made by boat and sledge in the spring and summer of 1895-6-7, he practically completed the mapping of Franz-Josef Land, only the eastern portion of which had been laid down by Payer when he discovered the islands, twenty-five years ago. On these journeys Mr. Jackson and his companions incurred grave dangers and endured much hardship. Throughout the whole period there were numerous adventures with bears, the number of which was seriously diminished during the sojourn of the expedition. Careful continuous records were made in meteorology and magnetism, and these, when worked out and compared with those of Nansen, will form a very valuable addition to science. The geology of the islands was investigated and specimens sent home, as also valuable collections of its plants and marine life. Altogether, the expedition has done important work, and when Mr. Jackson's complete narrative is published, it cannot fail to be full of interest and information. Mr. Jackson hopes to be able to renew his attempt to reach the pole, this time from the American side.

As for the other end of the earth, the Antarctic, that remains almost a virgin field—the greatest unexplored area on the face of the earth. Since Ross's expedition, nearly sixty years ago, and those of Wilkes and D'Urville, about the same time, but little has been done. Many important problems await the complete exploration of the Antarctic for solution.

The matter is exciting great interest both in Germany and in England, and within the next few years we may confidently hope for a rich harvest, both of adventure and of fresh knowledge of the great continent which it is believed surrounds the south pole, as well as the ice-covered ocean which environs it. Over the earth, as a whole, there is still a fair amount of pioneer exploration to be accomplished, and still more in the detailed examination of all the continents, and of that ocean which covers three-fourths of the globe. This will provide work for generations to come for men of the type with whose achievements we have been dealing, and of such men there is never likely to be any lack.

\* Mr. Jackson's account of his life in Franz-Josef Land may be found in an article, "Days in the Arctic," in *Harper's Magazine* for September, 1898.—Ed.

## THE APOTHEOSIS OF WAR.

BY VIRGINIA FRAZER BOYLE.

THUS through the beating of the reveillé,  
Through bloody conflict blent with gray and blue,  
Until the breath of peace, with solemn hush,  
Has stilled the throbbing of the last tattoo;

Until the form of Justice, pale and wan,  
Arising from the iron reign of Mars,  
Has laved her garment in the well of truth,  
And lifted up her glories to the stars;

Has bound a halo on each sunken mound,  
And washed the field and cleansed the blood-stained stream,  
And in the night-watch trailed her mantle down  
The fair Valhalla of the warriors' dream.

For hands are clasped across the bridge of years,  
And hearts are knit that cold and severed lay  
Upon a shrine where fame's unerring shaft  
Engrafts the cypress on the deathless bay;

Where memories live, reft of the barb that stings,  
And valor dwells, robbed of the thorn of hate;  
Where union lifts the war-cry of to-day  
Above the trappings of a trampling fate.

Ay, turn, old world, to see them proudly stand,  
A warp of gray upon a woof of blue;  
Ay, pause to see a brutal horde storm-swept  
In freedom's name by prowess tried and true.

They pledge the free-born blood that knows not fear.  
Nor ever knew the touch of conquering hand;  
For death—then with their faces to the foe,—  
For life—the strength and sinew of the land.

Yea, theirs the deeds of Puritanic brawn,  
And theirs the flower of Southern chivalry;  
Yea, theirs the land,—blest be the earth that shrines  
The ashes of a Lincoln and a Lee!

For truth dies not, and by her light they raise  
The flag whose starry folds have never trailed;  
And by the low tents of the deathless dead  
They lift the cause that never yet has failed.