

the Pole crowns long years of patient, persistent, fruitful discovery, whose scientific value outtops any other record and makes the attainment of 90 degrees north latitude no mere dash for fame, but the sound and sure result of heroic service in extending human knowledge.

For many years the North Pole has been the unreached, the unattainable goal of adventurous explorers of this and other lands. All sorts of means have been adopted in vain in the desperate efforts to reach the north tip of the earth's axis where now the Stars and Stripes fly.

It is not for us, who belong to the ordinary, unlearned portion of mankind, to dwell upon the scientific value of the North Pole's discovery. Far be it from us even to speculate upon the possible changes it will make in world affairs. We do not even know whether the North Pole will be a good summer resort or not.

Seriously, however, we rejoice that the flag that now flies there is the American flag. Long may it wave!

CHAPTER XI.

WATER AT POLE MILES DEEP.

Peary Makes Soundings Near Earth's Apex—At the Pole at Last—Photographing the weird Scene—Narrow Escape—Cosy Sleeping Quarters—In Sight of the Cape—Light Kit Helped Speed—Peary Practically Alone at Finish—Notifies Navy Department of Feat—Commander Peary's Official Status—Continental Sheef Defined—Peary's Significant Soundings—Amundsen's Proposed Trip.

FIVE miles from the North Pole, on his return trip, Peary made a sounding through a crack in the ice. For 1,500 fathoms his lead and wire went down, but struck no bottom.

That settles it. There is no longer any question as to whether there is water or land at the Pole. Peary has answered this question about which men have speculated for ages. He has proved that there is water, and water that is at least a mile and a half deep.

Amos Bonsall, Arctic explorer and survivor of the Elisha Kent Kane expedition, commented on the dispatches from Commander Peary, in which is recounted his actual arrival at the Pole.

Mr. Bonsall read extracts from Peary's detailed account of the final stages of his journey and his remarkable sledge dash back to the shore of Greenland. Interesting comment was interspersed by the one-time explorer, showing his keen appreciation and understanding of the difficulties encountered.

"Fortune assuredly smiled on the expedition," said Mr. Bonsall. "As I said when an outline of his daily progress first came from him, his trip from the Pole back to the coast of Grant Land in twenty days—a distance of nearly 500 miles—was truly amazing. Nothing like it has ever been heard of before, and I knew then that he must have found smooth ice, remarkably free from hummocks, all about the Pole. And this is just what he now says he did find.

"'We seemed to bear a potent charm,' he says, in telling of the rapid trip, and I think he was right. The amusing

remark of Ootah, the Eskimo, as they neared Cape Columbia, 'The devil is asleep or having trouble with his wife, or we should not have come back so easily,' may not have been far wrong either.

"Peary's account, taking up his journey at the 88th parallel, where Bartlett was ordered to leave the party and go back to establish a supporting station. The expedition, it is reported, had left Cape Columbia March 1. The cape is at about the 82d parallel and it required a full month to reach the 88th.

"It was a little after midnight, April 1, according to the final dispatches, that he started at the 88th parallel for the last stage of the dash to the Pole. There were then in his party, as he says, Hansen and Ootah, Eginwah and Sigloo and a fifth man, presumably an Eskimo. Hansen was the colored man, who has been with Peary on so many expeditions.

"He also says he had still the pick of 122 dogs with which he had left Cape Columbia, with sledges in good condition and enough supplies for forty days, his assistants all having been left at intervals to set up supporting depots for the return trip.

EVERY NERVE STRAINED TO MAKE FIVE MARCHES.

"It was his intention to strain every nerve to make five marches of fifteen miles each, weather and leads permitting. He realized full well that a twenty-four hour gale would 'knock all his plans into a cocked hat.' That is easily understood by anybody who has been in the Arctic regions, for if an easterly or southerly wind had arisen and blown continuously, the ice would almost certainly have shifted or even broken up and placed him in the gravest peril.

"Twenty-five miles, accomplished in the first ten hours of the march, took him well beyond the 88th parallel. There a few hours' sleep was taken and the journey resumed. The weather was fine and the 'going' also good, and they reeled off mile after mile at a fast clip.

"I can imagine Peary's buoyant spirits as he found everything going so smoothly and with the coveted Pole now only a few miles away. Though the ice was grinding audibly in all directions there was no visible movement and not an

obstacle was encountered until just short of the 89th parallel.

"This obstacle nearly wrecked the expedition. He came to the brink of an open lead, which is a crevice formed by the splitting asunder of the ice pack. The lead was 100 yards wide, and his party rushed across new ice which had formed over it. The ice buckled under the sledges and broke just as the last one got across. That must have been a pretty tight squeeze.

"The eighty-ninth parallel was just beyond, and as they reached it their thermometers registered forty degrees below zero. They took a short nap there, and then hurried twenty-five miles in continuous marches beyond the eighty-ninth parallel. This so exhausted the party that longer sleep than usual, he says, was necessary.

"Most persons have but a hazy idea of how explorers provide themselves with sleeping quarters in such low temperatures. The fact is, they sleep very comfortably and refresh themselves wonderfully for each succeeding march.

THE "IGLOOS" OR ICE HUTS.

"Peary constantly mentions his 'igloos.' These are ice huts. When a halt is made the Eskimos leash their dogs and then set to work with saws and carve out cakes of ice from beneath their feet. They pile the cakes up like building stones, and in an astonishingly brief period have the hut finished.

"An Eskimo lamp is then lighted and placed in the hut. The lamp is shaped like a huge clam shell, with dried Arctic moss for a wick. Blubber is the fuel used. The flame heats the blubber, which exudes oil, and this blazes up quite merrily.

"The lamp, of course, gives light, but its main purpose is to heat the hut. It will raise the temperature from forty or fifty degrees below zero to thirty-five or thirty-six degrees above in a short time. This is above freezing point, and the travelers then roll themselves up in their blankets and doze off as comfortably as though in their own homes.

"Peary's next march took him to latitude 89.25. At this point the horizon was black and the ice beneath of a ghastly, chalky white hue. I do not understand the meaning of that.

One meets strange light effects frequently in the polar regions, however, and they are often terrifying and depressing.

"It was twilight all the time during Peary's polar dash, with the sun appearing for only a brief space each day above the horizon.

"As he neared the Pole the going got better and better and the temperature rose. This is not surprising, for temperature, as one goes farther north, often rises considerably for a time and conditions are less severe on the body. You cannot depend on it, however, for without warning the thermometer will shoot downward again.

"Peary's exultant words about his arrival at the Pole make one's blood tingle as he reads them. He must have acted like a school boy in his delight.

PRECAUTIONARY MEASURES WHILE AT POLE.

"His movements after reaching the Pole, in going ten miles back of his camp and eight miles to the right of it, making observations all the time, were advisable and show his determination not to make any mistake about his discovery. It isn't likely that he could be certain that he stood on the exact centre of the earth's axis, but by going off at various angles and using his sextant, he could come very near locating it.

"What sport it must have been for him to take photographs at the earth's summit! For thirty hours he took observations, planted flags and studied the horizon. He arrived at the Pole April 6, and on the afternoon of the following day set out on the return trip to Cape Columbia. The minimum temperature while at the Pole was thirty-three degrees below zero, and the maximum only twelve degrees below. The latter temperature is not bad at all. One could readily live there if it would stay at twelve degrees. Out in Montana they think nothing of much colder conditions than that.

"At the start of the homeward journey Peary told his men that the marches were to be longer and sleep less. No time was to be lost in making needless observations, and the thing to do was to get back to Cape Columbia, away from their perilous position on treacherous ice. Back near the 87th parallel was a stretch fifty miles wide that made him

very uneasy, for a prolonged easterly or westerly gale would make it an open sea.

"It was just after leaving the Pole that Peary sounded the ocean. Five miles from the earth's top, he came across a deep crack in the ice and by chopping away part of the new surface ice that had recently formed, he was able to let down his lead and wire. For 1,500 fathoms it went down, and when the line was exhausted, with no bottom having been reached, he started to pull it up again. In doing this the wire caught and was broken and the apparatus sank and was lost.

"Three marches brought Peary to the igloos, where Captain Bartlett had turned back. The last of the three was accomplished with a northerly gale blowing snow and ice in their faces. Nobody knows who has not been there what it means to travel under such conditions, with the temperature away below zero. It seems that one's blood would freeze solid.

A HURRIED JOURNEY TO CAPE COLUMBIA.

"Mile after mile Peary hurried on toward Cape Columbia, more than 400 miles away. Good fortune met him at every step, and, though he frequently encountered open leads, the new ice was sufficient to support his sledges. The face of the landscape had been much changed, however, since he passed over it before. Many of the igloos built by his supporting parties had vanished. This was probably due to the shifting ice floes.

"It must have been a joyful moment when, on April 23, his tired Eskimos came in sight of Cape Columbia and danced about on the ice as though crazy with delight. In spite of their primitive intellects, Eskimos can speak forcibly and appropriately at times.

"One can hardly blame Peary and his men, after their reunion with the comrades who had parted from them at intervals on the trip, for spending the two days following their arrival at the cape in sleep. The reaction of both mind and muscle must have been overpowering.

"Peary's praise of Bartlett and the unfortunate Marvin, who was drowned, and of his other assistants, was doubtless rightly deserved. They had helped him achieve a wonderful

success. It is interesting to note that he attributes his success in great measure also to new type of sledge, which he says reduced the work of both dog and driver, and a new type of camp cooler, which added to the comfort and sleep of the men.

"His account of the southward journey of the Roosevelt from Cape Sheridan is interesting, but many explorers have accomplished that trip, so there is nothing new to science in it. Peary, on shipboard, however, had a feeling which nobody else, with the exception of Dr. Cook, has ever had, namely, the consciousness of having stood on the North Pole."

Anthony Fiala, who led the Zeigler expedition into the polar regions, declared:

"The most distinct impression I get from Peary's account of his trip is that it tends largely to corroborate and in no way to discredit Dr. Cook's first story of his reaching the Pole.

GREAT SPEED UNDER DIFFICULTIES.

"Take, for instance, the matter of speed in travel. Dr. Cook's account startled us all, because he claimed to have averaged from fifteen to sixteen miles a day, covering more than 520 miles in thirty-five days. This seemed strange, because the experience of other explorers, including my own, was that five to seven miles a day was all that could be safely accomplished. The Duke of the Abruzzi, with his redoubtable expedition, equipped in the best style money and experience could recommend, only averaged seven miles a day. How, then, we asked, could Cook traverse double that distance every day with his equipment?"

"The answer, of course, was that his light kit, his freedom from the hampering of many guides and the responsibilities attaching to supporting parties, enabled him to move at the double quick, like a soldier in light marching order. But there were many doubting Thomases, who would not accept such an explanation, and I confess that I was somewhat at a loss to understand Cook's rapid advance and slow return myself.

"But now who needs doubt? Peary's story shows that he averaged twenty-six miles a day, and that at the finish,

when he bade farewell to Captain Bartlett and his last supporting party, he advanced more than 140 miles, possibly more than 150 miles, to the Pole, in just four days, or at the rate of thirty-five to forty miles a day. Surely, this bears out in the strongest fashion Cook's statement of his own advance.

"Another matter which brought remarks from cavilers was that Dr. Cook had not been accompanied by any other white man in his dash for the Pole, and that, therefore, his story was devoid of that corroboration which science demands and exacts. But this will not be true if Dr. Cook, as he has promised to do, produces his records, showing incontestable proof of the truth of his statements.

NO WHITE MAN ACCOMPANIED PEARY.

"And as for Peary, his own story shows that for the last 150 miles of his journey to the Pole he let no white man accompany him. On the contrary, he deliberately and with preconceived plan, turned back the last white man—Captain Bartlett—when they reached the 88th parallel. From thence Peary went on with only his Eskimo and his negro attendant, Matt Hanson, who certainly enjoys no reputation for scientific knowledge, though his faithfulness and bravery are unquestioned.

"The great speed achieved by Peary is wonderful when one takes into consideration the many open leads he encountered, one of which delayed him eleven days. Cook found some stretches of open water, but nothing as bad as this. On the other hand, we must remember that the two men traversed quite different routes, many miles apart.

"Here also lies the explanation of Cook's delay in returning. Had he been equipped as Peary was he could have been back to civilization just a year earlier. But he had no such base of supporting parties, and when he left the Pole he had to forage his way back by a tremendously circuitous route, killing musk-oxen and other game for food, and covering hundreds of unnecessary miles. Then, when he reached Etah, he had to leg it to the nearest port in Greenland where there was the prospect of getting a ship, and he was fortunate enough to strike the Hans Egede.

"There was no possibility of the two parties, Cook's and

Peary's, meeting, for Peary had left Etah before Cook got back to it, and the doctor found there only Harry Whitney, who was camping for the winter on a hunting expedition. He intrusted his most valuable records to Whitney, who was then sent home on the Jeanie, a very slow boat.

"Why Whitney should have left the Roosevelt after boarding her I do not know, but perhaps Commander Peary can tell. At any rate, Whitney was due here in October, and we then had Cook's records of his trip."

"After reading Commander Peary's story, do you still feel satisfied that Dr. Cook reached the Pole?" Mr. Fiala was asked.

"Why, certainly," he replied. "What reason is there for not being so satisfied? There is nothing in Peary's story to discredit Cook, but there is much in it to explain things in Cook's story that seemed almost incredible at first, and I am now more than ever satisfied that Dr. Cook did reach the Pole, as he says, in April, 1908."

MESSAGES RECEIVED AT STATE DEPARTMENT.

To the President of the United States and to the Secretary of State, and to the Navy Department, of which he is an officer, Commander Robert E. Peary communicated the results of his expedition and the fact that he reached the North Pole and hoisted the Stars and Stripes on April 6, 1909.

The following message was received at the State Department from Commander Peary at Battle Harbor:

"BATTLE HARBOR, September 10.

"Hon. Secretary of State, Washington, D. C.

"Respectfully report hoisted Stars and Stripes on North Pole April 6 and formally took possession of that entire region and adjacent for and in name of President United States America. Record and United States flag left in possession.
"PEARY."

Commander Peary's first official notification to the Navy Department direct of his return and of his discovery of the North Pole came to the department in the following dispatch:

"Respectfully report my return; hoisted navy ensign on North Pole April 6.
"PEARY."

Responding to Commander Peary's dispatch Acting Secretary Winthrop sent the following telegram of congratulation:

"To Commander Peary, Battle Harbor, Labrador.

"Your telegraphic report received. Navy Department extends hearty congratulations on your successful attempt to reach the North Pole.
"WINTHROP."

Mr. Adee was Acting Secretary of State in the absence of Secretary Knox, who was at his Valley Forge home. A copy of Peary's dispatch was sent to the latter. Mr. Adee declined to make any comment whatever on the dispatch from Commander Peary on the ground that there was no question then before the department.

The Commander's dispatch to the navy was typical of that of an officer returning from a mission announcing to his superior officer respectfully that fact, and adding that he had hoisted the navy ensign on the North Pole on the sixth of April.

It was pointed out by navy officers that either Peary had been a little over enthusiastic in his annexation of the "entire region and adjacent," or he had discovered land up there, of which he has said nothing in the other reports he has sent out. His annexation of a bunch of ice floes would not amount to much, as they would not remain in position to give permanency to his record.

NO NATIONAL JURISDICTION OVER POLE.

The circumstances that there is ice at the North Pole does not alter the fact that the geographical pole is situated in the high seas, over which no nation has jurisdiction, and hoisting a flag on an ice floe would be of no more avail toward annexation than would raising a flag in the middle of the Atlantic.

Mr. Winthrop voiced the sentiments of the naval officials when he said that the Navy Department naturally was very much gratified that Civil Engineer Peary, who is an officer in the Civil Engineer Corps of the naval establishment, had succeeded after many attempts in reaching the Pole. The Commander was on leave of absence from the navy, but detailed to duty with the Coast and Geodetic Survey making "observations on the coast of Grant Land and Greenland."

On his previous expeditions he was not permitted to draw his salary as a naval officer, but because of the work which he has done for the survey on his latest expedition, he was entitled to his pay.

The Acting Secretary said that there was no doubt that Peary's leave of absence would be extended until such a time as his report to the Coast and Geodetic Survey was completed.

Some little comment and no little amusement was created in the Navy Department when Peary's dispatch came saying he had hoisted the navy ensign on the North Pole. Unlike a number of foreign countries, the American Navy has no ensign, but the flag that flies over the vessels of the navy is the same that floats to the breeze over the White House at Washington. There is a navy pennant, but this is used to designate ships in commission under certain circumstances.

REPORT PREPARED FOR PUBLIC INFORMATION.

The report of his journey to the North Pole, prepared by Commander Peary for the immediate information of the public, is one of the longest descriptions of a great work of exploration that has had its first publication in a newspaper. In its intrinsic interest, as giving to the world in some detail not only the story of Peary's travels to the northern apex of the world, but also discoveries of great scientific interest he has made, it will probably be regarded as outranking any similar document by a returned explorer in modern times.

That part of the report relating to his attainment of the Pole, what he saw and the reflections that crowded fast upon him at this great culmination and brilliant result of all the disappointments, the successes and the struggles that have filled nearly half his life, will live as a piece of strong, vivid and dramatic writing of fine literary quality and of permanent historic interest.

Peary had already settled the question of the northern extension of Greenland and its islands, the extent of the Greenland inland ice and the western shore line of Grant Land. He has now not only reached the Pole, but he has settled questions of enormous importance relating to the geography of the American polar basin.

Nansen's expedition on the Fram discovered that, contrary to earlier opinions, there was a deep north polar sea basin to the north of Asia. The Arctic Ocean had been thought to be a shallow sea, but Nansen found to the north of Asia depths exceeding 2,000 fathoms; or 12,000 feet.

It was not to be expected that lands would be discovered

rising from such great sea depths. Even volcanic Iceland stands upon a submarine plateau with comparatively shallow water around it. There is no deep water around any of the lands which have been discovered in the Arctic; hence some physical geographers have said that all known Arctic lands rise from the continental shelf, and that there is no probability that land will be discovered beyond the point where the shelf ends and the sea bottom descends to oceanic depths.

We see several references in Peary's report to the continental shelf. What is the continental shelf? It is an expression used by physical geographers to indicate the submarine platform surrounding most continental coasts and sometimes extending far away from them as a comparatively level plain from 600 to 1000 feet, or even more, below the surface of the sea. This is the case far north of Europe, where the Spitzbergen and Franz Josef Land rise from shallow waters.

THE EXPEDITION OF THE FRAM.

The Fram expedition told us a great deal about the condition of the sea floor to the north of Asia. But how about the American Arctic Sea? We have known almost nothing. Nansen wrote two years ago that all we knew of the American Arctic did not exclude the possibility of a wide extension of the continental shelf beyond the northernmost known islands of the American Arctic archipelago, and that there might be unknown lands on this shelf in the unknown North. He thought it was probable that some islands at least would be found in this Northern region.

The only sounding that had been made to the north of Grant Land was by the Nares expedition, and this was in comparatively shallow waters. But Peary's report contains the record of three soundings from a little north of Cape Columbia to the Pole, and they are very significant in their bearing upon the probability of discoveries of land in that part of the American Arctic.

About fifty miles north of Cape Columbia he took a sounding that revealed the sea floor at a depth of 110 fathoms, or 660 feet. Not a few physical geographers maintain that this depth should be regarded as marking the limit of the continental shelf, but some accord even as much as 1800 feet