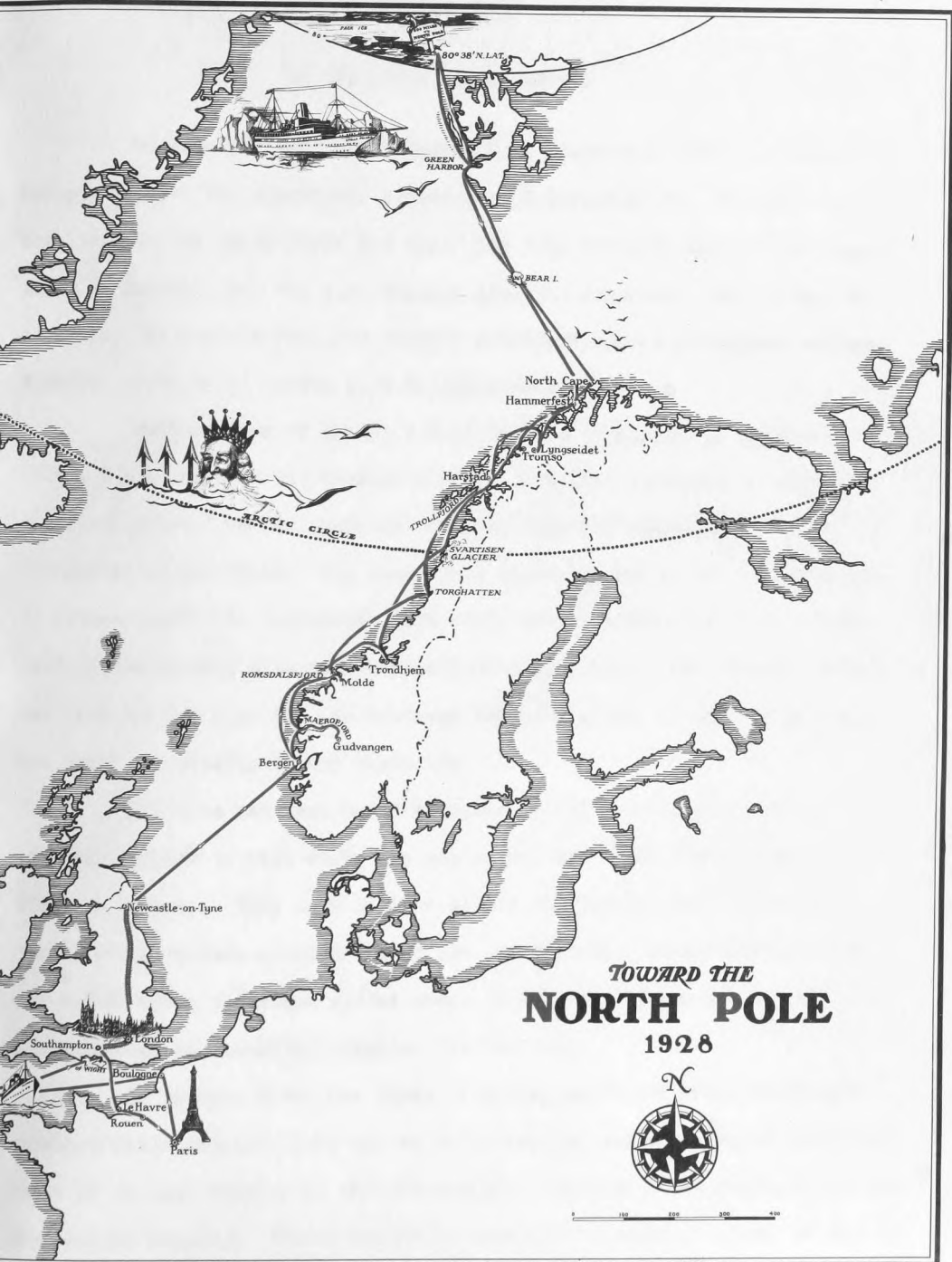




CHAPTER XXXII

TO THE NORTH POLAR ICE CAP

Grandfather had been bothered with rheumatism again. A trip to Europe, but not too strenuous, seemed a good prescription. Why not take a boat trip to the North Polar Ice Cap? The trip would require close connections in England, but the S.S. Olympic could be depended upon to make her schedule. So Grandfather, Grandmother and Grace hopped to England on the Olympic, arriving in London on a Friday evening.

Next morning we caught a boat train to Newcastle on Tyne and before 5 p.m. were on the Stella Polaris. The Stella Polaris is most like a private yacht. It had capacity for less than 200 passengers, carried no freight or second class. Its deck space was ample and no special location of steamer chair was necessary. The rooms held not more than two persons, were of comfortable size and furnished with real beds. The lounge occupied the front of the boat and was enclosed in plate glass, so that from inside one could see clearly in any direction.

The boat had been built exclusively for tourist purposes and is uniquely adapted to this work. We cut across the North Sea to Bergen and found it raining. They told us that an old sea captain once arriving at the entrance to Bergen Harbor found the sun shining. He concluded he had got to the wrong place and sailed away. Aside from Bergen and a night off North Cape we had excellent weather for the trip.

As we went along the coast of Norway and fiord after fiord with mountain walls passed before us, we were thrilled and also amazed that there could be so much scenery in any one country. Scenery is so common it is not appreciated locally. "Where does this road go?" we asked a cabman on one of

our stops. "Nowhere," he replied. "What is there to see if we ride along it?" "Nothing," he said. "Let's go anyway," we said, and we had a ride on a road that cut into the mountainside with marvelous views of sea and mountains and deep cut fiords that anywhere else would have made the road world famous.

As we approached the Arctic circle there was great excitement - it was rumored that Neptune and his band would visit the ship and initiate those who never before had visited the frozen zone. Sure enough, right after lunch, he arrived, dripping wet from the sea, with beard of seaweed. He assembled the passengers and called for two young ladies to come forward and receive certificates that would always be a passport to Neptune's realm. Grace and a companion of like age responded and what do you think happened? Why Neptune gave them both a kiss. In spite of the seaweed whiskers the girls reported it not so bad.

Grandfather may say parenthetically - not that it has any bearing on the story - but just because the thought happens to occur to him - that the first officer was an exceptionally good looking man.

After Neptune and his band retired and before the end of the cruise all were presented by the captain with certificates of having crossed the Arctic circle and of having reached $80^{\circ}38'$ north latitude at $11^{\circ}25'$ east Longitude.

As soon as we crossed the Arctic Circle we were all agog to see how people lived - well at our first stop after crossing the circle we found bare-foot boys playing in the public fountain throwing water at each other. When we took a ride along the sea, we saw a half dozen boys swimming in the ocean in the same kind of bathing suit Grandfather had when he was a boy. Grandfather will leave it to your imagination to guess what that was. Probably you would have thought the water cold. They appeared not to. One boy seemed

at outs with the crowd and he sat, sans clothes, on a rock pouting.

The principal industries of the Norway coast are fishing and dairy. Fish were abundant - you may see them hung up to dry quite literally by the acre, for the fish would be suspended from a pole and one pole would be placed beside another until an acre or more of ground might seem quite covered with fish. When the fish were dried they were dumped into boats and men standing on the fish (where else could men stand when the boat was full of fish) rowed them both over to a warehouse.

The method of dairying was odd, for the farms were so perpendicular that they had to tie the cows to stakes to keep them from falling off the farm. At any rate it appeared to be the custom to tie the cows to stakes, and Grandfather guessed the purpose might be to assist the cow to stay on terra firma and not imitate its owner by going to sea.

The funniest part about the dairy industry, though, was haymaking. You see in this country they have an enormous amount of rain and during the summer for many hours each day the sun is above the horizon. So the combination of much moisture and of sun rays, even although they be filtered through the clouds, produces a great growth of hay. The problem is how to dry the hay, for it just rains and rains and rains.

Here's how they do it. They run temporary fences through the hay fields with three strands of wire, one above the other, and on these wires they hang the hay. When the hay is hung on the fence, you have a solid wall of hay as high as man can reach. Thus the hay "cures" and if some day the sun is out long enough to dry the cured hay, there is great activity and all the hay is gathered into barns. Everything grows large here - we took a picture one day of a six-foot cabman in a bed of wonderful delphiniums much taller than he.

At every stop we hired an automobile for a ride. Usually we were fortunate in getting a driver who could speak English. One had lived in Wisconsin; another had been taught by his sister who returned from America. Once we were furnished a little girl for an interpreter. Her father was a professor of English, French and German in the University. It was a surprise and a delight to hear this little girl speak Shakespearean English entirely devoid of slang or colloquialism. You see, she had been taught from the books and had never played with children who spoke English. We took her to lunch with us. "I am very fond," said the little girl, "of this - I do not remember what name you have for it, but it means little hen."

Many of the Arctic circle summer days are very long. As a matter of fact, on June 21st the sun does not set for all day on any part of the North Arctic Zone. You see, every part of the world gets the same number of hours of daylight in a year. The only difference is in the distribution of the hours. At the Equator the sun is above the horizon twelve hours every day of the year and below the horizon the other twelve. At the North Pole the sun is above the horizon for six months all in one stretch and then below the horizon for the other six months.

If you were to live on the 45th parallel (which runs through Wausau) your longest summer day (June 21st) would be about twice as long as your shortest winter day (December 21st). Since you live somewhat nearer the Equator than you do the North Pole, your longest summer day is not quite twice as long as the shortest winter day. Now don't you think it would be a lot of fun north of the Arctic Circle to have sun for twenty-four hours so you could play all day and all night. But, on second thought, you might have to go to bed at night anyway, and it might not be any fun to go to bed with the sun shining brightly. Well, but just think of the winter when the sun does not shine at all. How could you get to school?

Grandfather asked people there how children went to school in the winter. They said, "Oh, the children know the way and when the moon shines on the snow they can see well enough. On dark days each child carries a lantern." Think of going to school with a lantern! Wouldn't you think they would get their lanterns all mixed up? Perhaps every child has his name on his lantern. Of course, they have to study by lamp light and that may not be very pleasant.

But how do children get to school who live in the country and have a long ways to go? Well, at Hammerfest, the northernmost city in the world, we hired an automobile and drove out to see a rural school - and what do you suppose we found? A great big building - that is, big for a rural school house, with sleeping quarters and dining room.

They gather up half the children and bring them to school for two weeks of intensive training and the children sleep and eat and study at the school house for two weeks and then these children are taken home and the other half are brought for two weeks, and so in alternate two-week periods all winter, a child studies hard and then he stays home to help his parents. Is not that a funny way to go to school?

And how do you suppose so many children can take a bath, for there would hardly be bathtubs enough? Well, they all get a "Swedish" bath. Did you ever hear of a Swedish bath? Well, there was a large room in the basement with a row of benches around the wall and a broad shelf above the benches. The smallest boys sit on the benches and the larger boys climb up and sit on the shelves. In the center of the room is a big stove with some big round rocks on the stove - all very hot. Now when all the boys are in place they throw water on the hot rocks. My, but the rocks must sizzle - and the room is filled with steam - and this is a Swedish bath. After the

children are well steamed, I suppose they dash a little water on themselves and rub dry and put on warm clothing and stay indoors for a time. Is not all that very interesting?

Perhaps you wonder what a day is like which has no sunrise and no sunset? Do you suppose that the sun stands still; if not, what do you suppose it does do? Well, if you will notice carefully on some long summer day you will find the sun rising north of East and setting north of West. When you travel northward the sun rises further north of East and sets further north of West and the sunsets take longer and the twilight lasts longer, and perhaps you have gorgeous colors at sunset - red and yellow and perhaps also green.

The sunsets get later each night as you travel northward. One night the sun did not set until 11 p.m. Think of that hour for a sunset. After the sun set we waited for the afterglow to die down, and we waited and waited and waited and then we suddenly became aware the sun was coming up again almost where it went down. Was not that queer?

And the next night the sun never set at all - it just swung down near to the horizon but did not go below. You see the sun appears to make a complete circle around you, the noonday sun being due South and the midnight sun being due North. The midnight sun is nearer the horizon than the noonday sun, except exactly at the North Pole where there is only one direction, namely, south. Is it not funny to think of a place where there is no north or east or west - only south?

Since your midnight sun is nearer to the horizon than the midday sun, it is less bright, but it is a perfectly good sun - you can play games and read and take pictures at midnight. How then do you know when to go to bed? They feed you an extra meal at midnight. After you have taken that

meal you know the next meal will be breakfast and you may think it well to take a nap before breakfast. However, if you don't feel sleepy, you can play games on the deck or read and, oh well, you may sleep any time in the twenty-four hours the spirit may move you. For what difference does it make when you sleep if the sun shines all the time.

Some people think they cannot sleep when it is not dark. That is a crazy notion, but when people get it, they become so sure they cannot sleep when the sun shines that they really keep themselves awake thinking how they cannot sleep. Just to kid these people into kidding themselves, there was a metal cover you could clamp down over your porthole and make your stateroom dark, but Grandfather and Grandmother and Grace did not have this crazy idea and thought it more pleasant to sleep with the porthole wide open and the sun streaming in.

But let's go back to Bergen and start this trip over. Well, there were fiords - deep bays extending from the sea into the land and mountains and, as we got further north, glaciers. You probably know about glaciers. It snows on the mountains and the snow drifts into the valleys and packs into solid ice and the pressure on the ice below from the ice above is so great that the ice very slowly flows down the valley. You would not think that ice could flow like water - well, it cannot flow fast enough for you to see it move. It moves only inches or a few feet in a year, but it does move and when a glacier flows down into a sea, the bottom breaks off and makes icebergs. Well, this trip was well supplied with glaciers. We stopped at one in northern Norway, which they said was larger than all the glaciers of Switzerland put together, and Spitzbergen is nearly all glacier. The problem is to find Spitzbergen for the glaciers. Also, there were abundant icebergs - icebergs are pretty to look at but dangerous in a fog, for they do

not respond to the ship's foghorn and don't get out of the way, but when we were among the icebergs the sun shone all day and no one felt uneasy.

When we reached North Cape it was misting. A few brave souls climbed the big rock in the mist but did not report a good time. Next morning the sun shone and we were off for the Polar Ice Cap. We went by Bird Island and here, I think, is a very funny English story.

The boat stops off the island and shoots skyrockets into the island, whereupon millions upon millions of birds appear, fairly darkening the sky. Most of the birds were smaller than sea gulls. They looked a bit familiar, yet Grandfather could not recall where he had seen the like and asked a professional photographer for their name. He said he had just asked a gentleman who claimed to know. He said they were "hawks". Grandfather said, whatever else they might be, they certainly did not look like hawks.

A little later the photographer was back again. He said the information was all right, but he had it from an Englishman - and the Englishman did not mean they were h-a-w-k-s; he meant they were a-u-k-s. Doesn't that make you laugh? Sure enough they were auks, diminutive specimens of the auk family, looking quite like the picture of the great auk in the geography Grandfather had studied when he was a boy.

We passed Bear Island - saw the island, but no bear, and arrived at Spitzbergen - a collection of ice-clad mountains, the ice continuing down almost to sea level, with a little ground free from ice in August, but not really thawed out. The ground is said to be frozen solid for 500 to 1,000 feet deep. In June a little of the top thaws and mosses and tiny flowers appear in profusion - some 130 varieties of flowers having been noted by scientists. But the ground does not warm up enough to raise vegetables and the people are dependant for food on supplies brought in, plus fish they

catch. There are, of course, no trees, the tallest vegetation being Polar willows, which do not exceed two feet.

The chief interest in the island is that it has been the starting point for many of the attempts to reach the North Pole. It was from Spitzbergen, for example, that Byrd took off in his airplane flight over the North Pole. In the summer we were there, Amundson had not returned from his last expedition, and there was unusual activity in the Polar regions in an international attempt to find him.

Curiously enough, just near the surface of the ground are enormous deposits of coal, indicating that sometime Spitzbergen must have had a tropical climate. The coal is said to be of excellent quality, both soft coal and bituminous. Stimulated by the scarcity of coal in the War and for a few years thereafter, several mines were opened.

Coal mining here is unique. Since the ground below the surface is frozen solid and never melts, they have no problem of water getting into the mines and no pumps are necessary. The problem of timbering the mines so that they will not cave in is simplified, for columns of frozen ground make excellent supports. On the other hand, no one willingly goes to Spitzbergen to work and the mines have to depend on labor which is too poor to obtain jobs elsewhere.

Coal can be shipped only in July, August and September. That produced in other months must be held in pits until ice gets out of the harbors. So these mines can operate only when the price of coal is high and must close when the price goes down. It is, however, reassuring to know that if the world ever needs it, Spitzbergen has enormous deposits of fuel. When we were there in 1928, most of the mines were closed - one was operating, the men living in barracks. A wireloss station was being maintained; otherwise the

islands were desolate - no tourists, no automobiles, no sidewalks, no one to pick up tin cans - just ice and scenery and wild wastes.

After visiting four different harbors in Spitzbergen, all of which we found interesting, we sailed boldly north to see how near to the North Pole we could get. We encountered the Polar Ice Cap at $80^{\circ}38'$ on August 7th, 1928. If you will locate 80° North Latitude on a globe you will be surprised to see how far north we were. You will see that we were way north of any continental land of either hemisphere. If you will follow the parallel 80° around to the American continent, you will find that it is a shorter distance north from there to the Pole than south from there to the northernmost part of Alaska.

The Ice Cap was not much to look at - just an endless sea of ice floes held closely together as if by a boom, looking much like a lake in the springtime. There were no high peaks of ice - in other words, no icebergs. Icebergs, you remember from what I wrote above, are pieces broken off from glaciers. They are fresh water. Since the glacier from which the icebergs are broken is very thick, the icebergs also are thick, so that part of each iceberg floats high out of the water.

But the Polar Ice Cap is only frozen ocean, so except as a storm may pile broken pieces up into hummocks, the ice lies low in the water - not much to look at - but just to think of being about 600 miles from the North Pole! You see, what makes this possible is the Gulf Stream. The Gulf Stream passing the British Islands goes northward, losing itself in the Polar Sea, but when summer days bring day-long sun, the combination of gulf stream and all-day sun melts the ice and drives open water into the ice cap at this point much deeper than in any other place. Hence it is that in August north of Spitzbergen in a comfortable tourist steamer we may penetrate so far into the frozen North.

But was it not very cold, Grandfather, one of you may ask? Not so - cold, of course, for summer - most of the time between 50° and 60° above. The lowest Grandfather noted on the ship thermometer was one midnight when it was 40° above. We wore heavy clothing and found it comfortable on deck most of the time, and within the heated glass-enclosed living room the temperature was always comfortable. As a matter of fact, taking a walk in Spitzbergen when the sun came out, we got up quite a bit of perspiration.

Having reviewed from a safe distance the terrors of the Polar Ice Field, we turned homeward, and then came our first sensations of dread and a sense of being far from home. To be sure, in the Polar Sea had anything gone wrong, no ship would have been near enough to answer an S.O.S. call, but the sun shone all day and all night and we all felt safe and happy. But when we got back to where the sun set and it got dark and the wind howled, we felt we were far from home in a sea of fog and icebergs.

Man is instinctively a creature of light and is instinctively afraid of the dark. Do you sometimes feel afraid to go upstairs in the dark? Well, there is nothing up there to hurt you, but you reflect the instincts of the human race - to dread the dark.

We made a number of interesting stops in Norway, saw more marvelous scenery, encountered rain again in Bergen and were, ere long, back in London. We motored for a day around the Isle of Wight, spent a week in Paris and again were homeward bound. Do you not think that it was an interesting trip?