



Fridtjof Nansen.
10. October 1861–13. May 1930.

Well-nigh fifty years ago, FRIDTJOF NANSEN had a modest post in the Bergen Museum, then as now a real centre of research and study. It was there I met him for the first time, and I have not forgotten what NANSEN looked like; he was a Norseman of the Sagas, with a Viking's yellow hair, and with strength to wield the hammer of Thor. That was a long time ago, and things have changed marvellously. Among the things which NANSEN took me to see were the leper-hospitals, of which there were three in Bergen alone; I doubt whether there is a single case of leprosy left in Norway today.

Employed in a Natural History Museum, NANSEN's business was the science of zoology; for this he toiled hard and eagerly, and his early papers are not forgotten. One was a monograph of the genus *Myzostoma*, a little isolated group of parasitic worms, living on the feather-stars and sea-lilies. Another of his early memoirs was on the Hagfish, or *Myxine*, a strange primitive eel-like fish, full of puzzling features both in its habits and its anatomy; NANSEN made the surprising discovery (it was made by Mr. J. T. CUNNINGHAM about the same time) that this ancient fish was, alone among vertebrates, a hermaphrodite animal, male in its youth and female when it grew old.

When I met him first he had already made his first Arctic trip, in the Norwegian sealer "Viking". He set out on the pretext (as he called it) of collecting natural history specimens, but the Greenland ice excited him to new ambitions, and he came home impatient to return. Long years afterwards, in St. Andrews, he said to us: "That was the first fatal step that led me astray from the quiet life of science". A longing awoke in him, and vague plans revolved in his mind, of exploring the unknown interior of Greenland, hidden below the "inland-ice" of its enormous ice-cap. WHYMPER, PEARY and NORDENSKIOLD were among those who had tried, and failed, to cross this vast frozen territory; but the last of these had two Lapps with him, expert ski-runners, and one day a message came to Bergen that these Lapps had found the snow-covered Greenland ice favourable, and had been able to cover long distances on their skis. NANSEN could ski as well as any Lapp, and here he found his opportunity. His plan was to force an entrance on the desolate, ice-bound eastern coast of

Greenland, and force his way through to the settlements on Davis Straits. The "absolute recklessness of the plan" was pointed out by the experts; but NANSEN considered a line of retreat to be "a wretched invention", and the want of it only simplified matters. There would be no need to urge one's men on — for there was no possibility of turning back. The method worked well; NANSEN made his adventurous journey at little cost and in the simplest way; and the book in which he described this "First Crossing of Greenland" was the beginning of his literary fame. The journey only whetted NANSEN's appetite for adventure, and served as an apprenticeship for the great expedition in search of the Pole on which he embarked in the year 1893. He had watched the East Greenland Current flowing south between Greenland and Iceland, bringing not only ice but drift-wood too; and this current, he declared, must have crossed over the Polar Sea from the Siberian side, and had probably come right across the Pole. He planned his course, then, so that he might drift with this current, were it fast or slow; and he built the "Fram" not such as to force her way through the ice but to drift with it, and to be wedged upwards rather than crushed in an ice-jam. His comrades were like the crew of Ulysses, "strong in will, To strive, to seek, to find and not to yield". Some of us remember well, and all of us have heard, how NANSEN disappeared into the Far North and was lost for three years; and how when he reached Spitzbergen at last and came in touch with his fellow men, the whole world acclaimed him with a joyful welcome, as one who was lost and was found. I was in an out-of-the-way part of the world myself just then, on an island in Bering Sea; one day a ship came in bringing us supplies and news, and before ever the ship's boat reached the shore her men shouted to us across the water in their haste to tell us that NANSEN had come home.

NANSEN was now famous, rich, admired of all admirers; but he was too great a man for even flattery to spoil. He was as simple, zealous, hopeful, loveable as before. While he was a born traveller and explorer, he was also, even first and foremost, a scientific man. It was not for mere adventure that he had crossed Greenland, nor that he had sailed farther than any other man had yet done towards the Pole; it was in order to study as well as ever

he could the unknown phenomena of these untrodden regions. If NANSEN began as a zoologist, he soon made himself chemist, physicist, and meteorologist. The instrument we still use for bringing up water-samples from great depths was mainly his invention; the causes of ocean-currents, the surface-tension of liquids, the secular changes in certain coast-lines are among the many physical problems which he became an authority upon. The "Fram" had been none too well equipped, not so much from lack of means as because NANSEN had underestimated the depth of the Polar Sea; but all through the voyage he kept devising rough and ready methods of attacking the great problems at hand, and he spent years afterwards in wresting from his somewhat scanty records the secrets they contained. The fifteen volumes of Scientific Reports of the Norwegian North Polar Expedition (1893—1896), largely written by NANSEN'S own hand, form one of the mainstays of our present knowledge of Hydrography and Oceanography. The voyage of the "Fram" did one thing more, and this Dr. H. R. MILL has called "the chief glory of the expedition". It put an end for ever to the old style of polar exploration, where naval officers, with large crews under naval discipline, did their best to carry out the plans and orders of geographers at home. In perilous enterprises, where NANSEN'S motto "Forward, Forward" is the only rule, the band of brothers, the crew of Ulysses, is the better way.

Among a host of interesting things which NANSEN'S Polar Expedition Reports contain, let me say a word on one. When the "Fram" was making her way along the Siberian coast on her northward voyage she fell in, three times over, with a strange condition of the sea which Norwegian sailormen call "dead water", and of which they were wont to tell stories none too easy to believe. The "Fram" was approaching the ice one day in order to make fast to it; her engines were kept at full speed, but the ship crept along so slowly that NANSEN got into a row-boat to row ahead, and shoot a seal or two. Here was a very strange phenomenon, but it was not a new one. TACITUS speaks of the same thing when he says that in Thule the sea is "tough and hard for the rowers (*pignum et grave remigantibus*)"; and again PLINY gives to a like occurrence the common explanation of his time, when he relates how ANTONY'S own galley was mysteriously delayed at Actium,

and how the cause was a little sucking-fish (or *Remora*), which had fastened on its keel. NANSEN was the first to show that this was a real phenomenon, with a definite physical cause; and what that cause was, he and his colleague Dr. WALFRID EKMAN clearly and thoroughly explained. "Dead-water" happens where a surface-layer of fresher or lighter water rests upon the salt water of the sea; as may often happen where a stream runs down into a Norwegian fjord, or where melting ice flows over a calm sea. As NANSEN put it, "the fresh water is carried along with the ship, gliding on the heavier sea beneath as if on a fixed foundation"; moreover, at the surface where the two layers meet, waves are set up just as they are on the open surface of the sea. The fresh water tends to be heaped up ahead of the advancing ship, a sternward pressure opposes her advance, and the friction of water flowing past her keel further impedes her progress. A small ship loses way, refuses to obey her helm, and becomes unmanageable; but a curious thing is that a more powerful ship, going a trifle faster, may ride on the "solitary wave" and be helped rather than impeded.

NANSEN, not long home from his great adventure, was conspicuous at the Conference in Stockholm which, in 1899, prepared the way for our International Council for the Exploration of the Sea; and for several years after the establishment of the Council he was an enthusiastic and most useful member. The scientific side of the Council was very prominent in those days, and, with men like NANSEN, HENSEN, HELLAND-HANSEN, WALFRID EKMAN, CLEVE, KRÜMMEL, BRANDT, HEINCKE and others, it included well-nigh all the best skill and expert knowledge of the time. It was NANSEN's ardent wish that his own country should be recognised as the centre of oceanographical research, and at one time the Council actually resolved to establish its Central Oceanographical Laboratory in Christiania, under NANSEN's charge, with WALFRID EKMAN as his second in command. This project was never carried out; but the present Geophysical Institute in Bergen is precisely such a centre of research as NANSEN dreamed of, strove for, and at last saw realised.

While NANSEN shewed himself an industrious and original investigator all his life long, both in biological and physical science, yet all this neither filled up his time nor used more than a part

of his strength and energy. For well-nigh the latter half of his life NANSSEN played a great part in public life and in political affairs. When Norway found it needful to break off her partnership with Sweden, under which King OSCAR held both thrones and wore the double crown, NANSSEN was a leader and prime mover of Norwegian opinion; so great was his influence and so deep the people's faith in him that for the time being he was nothing short of their uncrowned King. Then, when the new King was crowned, NANSSEN came to England as Norwegian Minister, and held that post just so long and no longer than it seemed to him his duty to do, while the affairs of the new kingdom were settling down. The duties of a diplomat, the etiquette of a courtier, did not trouble him at all; King Edward received him into his intimate friendship, and NANSSEN moved as easily in the air of the Foreign Office as in his laboratory at Christiania or on the deck of the "Fram". Without being a courtier he found a welcome in courts; he had a way, somehow, of putting royalty at its ease! In later years, during and after the War, throughout the worst of Russia's troubles or wherever in Germany, Turkey or Armenia there was misery to be succoured and famine to be relieved, NANSSEN found his occupation. The Kremlin opened its mysterious doors to him, and LENIN trusted him, like all other men.

It was NANSSEN'S good fortune to combine the poet and the dreamer with the man of action and of affairs. Imagination led him on and pure ambition, not thought of fame nor expectation of reward; and the same romantic imagination led him to spend the scanty leisure of years over the Sagas and traditions of his race, and to tell the story, in his curious and beautiful book "In Northern Mists", of the exploration, conquests and discoveries of his Viking forefathers. Some four years ago he came to our University as its Lord Rector, and gave an address to our students on the spirit of "Adventure", a theme that scarce another man had as much right to speak of as he. No orator I have ever heard so moved his hearers as NANSSEN moved his student-audience that day. "Oh youth, youth! What a glorious word! Unknown realms ahead of you, hidden behind the mists of the morning..... You are foot-loose and heart-free to sail beyond the sunset, and to roam the universe..... Rooted deep in the nature of every

one of us is the spirit of adventure, the call of the wild, — vibrating under all our actions, making life deeper and higher and nobler.

Let us probe the silent places, let us seek what luck betide us,
Let us journey to a lonely land I know.

There's a whisper on the night-wind, there's a star agleam to
guide us,

And the Wild is calling, calling..... let us go."

To describe NANSEN'S full and varied life, even to sketch it lightly in these few lines, is to attempt the impossible; but this short story may give us something to think upon. NANSEN was a great figure in the world. Sometimes a world-wide reputation only means that a man is known to all those of his own class or trade; but NANSEN was known to all sorts and conditions of men. What was it that made him great as well as famous? I do not think it was his eloquence or his learning or even his spirit of adventure, nor was it his political ambition nor his statesmanlike insight and skill. It was rather a certain quality of his, a force of character, an air of high distinction which he wore to a degree unmatched in all my experience of men. He came into a room and men gathered round him, he went out into the world and men followed him, he spoke and we all hearkened to him! Moreover his courage never failed, his faith moved mountains out of his way, and his friendship was of the kind which lasts for ever.

D'ARCY W. THOMPSON.
